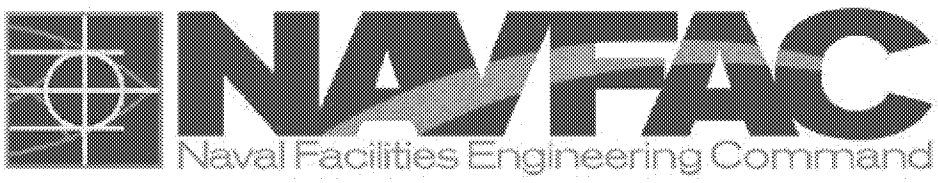

Naval Facilities Engineering Command Southwest
BRAC PMO West
San Diego, CA

DRAFT
PARCEL G REMOVAL SITE EVALUATION WORK PLAN ADDENDUM

Radiological Investigation, Survey, and Reporting
Parcel G

FORMER HUNTERS POINT NAVAL SHIPYARD
SAN FRANCISCO, CALIFORNIA

April 2019

Approved for public release: distribution unlimited.

DCN: APTM-0006-5065-0005.A1/D

2.0 PROJECT REQUIREMENTS

This section discusses required project plans.

2.1 Accident Prevention Plan/Site Safety and Health Plan

The APP/SSHP (APTIM, 2019a) was prepared to support fieldwork in accordance with *Safety and Health Requirements Manual, EM 385-1-1* (U.S. Army Corps of Engineers, 2014) and *Unified Facilities Guide Specifications, Section 01 35 26, Governmental Safety Requirements* (Naval Facilities Engineering Command, 2015). The APP/SSHP is a standalone document, submitted under a separate cover.

2.2 Radiation Protection Plan

The RPP (APTIM, 2019b) was prepared to support work performed by APTIM at Parcel G. It is a standalone document and was submitted under a separate cover. The RPP document requirements and standard operating procedures to ensure qualified personnel, proper radiological controls, and approved standard operating procedures (APTIM, 2019b) are used to perform radiological work at the site

2.3 Sampling and Analysis Plan

A SAP was prepared and included as Appendix B to the WP (CH2M Hill, Inc., 2019). APTIM prepared a SAP addendum to include personnel and laboratory-specific information for this work (Appendix B).

2.4 Contractor Quality Control Plan

APTIM prepared a Contractor Quality Control Plan (Appendix C). The Contractor Quality Control Plan was prepared in accordance with *Unified Facilities Guide Specifications, Section 01 35 26, Governmental Safety Requirements* (Naval Facilities Engineering Command, 2015).

2.5 Environmental Protection Plan

An Environmental Protection Plan was prepared and included as Section 8 of the WP (CH2M Hill, Inc., 2019).

2.5.1 Stormwater Management Plan

APTIM prepared a Stormwater Management Plan (Appendix D).

2.5.2 Dust Management Plan

APTIM prepared a Dust Management Plan (Appendix E).

Appendix C
Contractor Quality Control Plan

Naval Facilities Engineering Command Southwest
BRAC PMO West
San Diego, CA

APPENDIX C

DRAFT
CONTRACTOR QUALITY CONTROL PLAN

Radiological Investigation, Survey, and Reporting
Parcel G

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SAN FRANCISCO, CALIFORNIA

April 2019

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Naval Facilities Engineering Command Southwest
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APPENDIX C

DRAFT
CONTRACTOR QUALITY CONTROL PLAN

Radiological Investigation, Survey, and Reporting
Parcel G

FORMER HUNTERS POINT NAVAL SHIPYARD
SAN FRANCISCO, CALIFORNIA

April 2019

Prepared for:

Department of the Navy
Naval Facilities Engineering Command Southwest
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Contract Number: N62473-17-D-0006; Task Order: N6247318F5065
DCN: APTM-0006-5065-0005.A1/D

Naval Facilities Engineering Command Southwest
BRAC PMO West
San Diego, CA

APPENDIX C

DRAFT
CONTRACTOR QUALITY CONTROL PLAN

Radiological Investigation, Survey, and Reporting
Parcel G

FORMER HUNTERS POINT NAVAL SHIPYARD
SAN FRANCISCO, CALIFORNIA

April 2019

Approved By: _____ _____

Steve Massey
Program Quality Control Manager

Date

Approved By: _____ _____

Lisa Bercik, PE
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Date

Contract Number: N62473-17-D-0006; Task Order: N6247318F5065
DCN: APTM-0006-5065-0005.A1/D

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Attachment 9 Organization and Personnel Certifications
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Acronyms and Abbreviations

APP/SSHP	*Accident Prevention Plan/Site Safety and Health Plan, Radiological Investigation, Survey, and Reporting, Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California*
AMS	*APTIM Management System*
APTIM	Aptim Federal Services, LLC
COR	Contracting Officer Representative
CQC	contractor quality control
CTO	contract task order
DFOW	definable feature of work
KO	Contracting Officer
Navy	U.S. Department of the Navy
PM	project manager
QC	quality control
QCD	quality control directive
SAP	sampling and analysis plan
WP	*Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, California*
WPA	work plan addendum

1.0 INTRODUCTION

Aptim Federal Services, LLC (APTIM) prepared this Contractor Quality Control (CQC) Plan under Contract No. N62473-17-D-0006, Contract Task Order (CTO) N6247318F5065 to describe the quality control (QC) actions that will be implemented during the radiological removal activities at Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California. This CQC Plan will be used in conjunction with the following:

- *Final Corporate Quality Management Plan, Contract N62473-17-D-0006, Environmental Multiple Award Contract for Remediation of Radiological Contaminants (RADMAC II)* (CB&I Federal Services LLC, 2017), which includes quality control directives (QCDs)
- *APTIM Management System* (AMS; APTIM, 2019a)

Soil-investigation-removal-action activities include the following:

- Mobilization and site setup
- Maintenance of best management practices
- Utility clearance and land survey
- Radiological surveys
- Concrete and/or asphalt removal
- Excavation and backfill
- Soil screening
- Direct push technology soil sampling
- Site restoration
- Waste transportation and disposal
- Demobilization

Radiological work will be performed in accordance with U.S. Nuclear Regulatory Commission Radioactive Materials License 20-31340-01, California license 7789-07, and associated procedures and work instructions. Radiological safety procedures and roles and responsibilities of the radiological organization are described in the *Radiation Protection Plan, Radiological Investigation, Survey, and Reporting, Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California* (APTIM, 2019b). Removal work will be performed per the *Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, California* (WP; CH2M Hill, Inc., 2019) and this work plan addendum (WPA).

This project-specific CQC Plan was developed to ensure project activities are conducted in a planned and controlled manner, the product of these activities conforms to contract requirements, and appropriate documentation exists to support each activity for which APTIM is responsible.

A Project QC Manager will be present at the work site to implement and manage the QC Program. The Project QC Manager will work closely with the Project Manager (PM) and with the U.S. Department of the Navy (Navy) quality assurance representatives to assure work is performed in compliance with specifications contained in the WP (CH2M Hill, Inc., 2019) and this WPA and CQC Plan. The Project QC Manager has the authority to stop work if contract requirements are not being met. In the event that the Project QC Manager is unavailable, an alternate QC Manager will assume this responsibility.

The Program QC Manager for this Navy contract is responsible for developing, maintaining, and enforcing the QC Program for the contract, and will work directly with the PM and the Project QC Manager to assure that work is performed in compliance with the contract. The Program QC Manager will serve as an alternate contact for the Project QC Manager if questions arise regarding acceptability of materials or performance during the project.

The PM reports to the Program Manager for the contract, who has the responsibility and authority to ensure that the work is performed according to the approved specifications and to the Navy's satisfaction.

Attachment 1 depicts APTIM's project organization for this CTO. Attachments 2 through 9 are documents from the QCDs tailored to this CTO, which will help achieve statement CTO objectives. Attachment 10 includes QCD 24.0, which was prepared for this CTO. If additional QCDs are required as the project progresses, these procedures will be inserted into Attachment 10.

2.0 QUALITY CONTROL ORGANIZATION

APTIM structured its corporate QC organization to support the Program Managers and PMs who have ultimate responsibility for the quality of services APTIM provides. The Program Managers and PMs are responsible for ensuring that personnel in their organizations understand the corporate and contract-specific QC programs and that their organizations' functions are set up and maintained effectively.

Quality issues are resolved at the lowest possible organizational level at each project site, to enable timely correction action development and implementation. Issues that cannot be satisfactorily resolved at the project level are elevated to and resolved at the corporate level.

Attachment 1 shows APTIM's project organization chart, including QC personnel. The figure illustrates the reporting and communication relationships between QC personnel, the APTIM field team, subcontractors, and Navy representatives. This structure provides the organizational freedom for personnel to identify and evaluate quality problems and discrepancies, provide recommended solutions, and ensure that appropriate corrective actions are taken.

Attachment 2 outlines specific responsibilities and qualifications associated with each QC-related position. Attachments 3 and 4 summarize the qualifications and experience of the proposed key appointees for this project.

2.1 Quality Control Personnel and Qualifications

Key QC personnel for APTIM projects are assigned on the basis of appropriate experience and the determination that these individuals meet the contract and CTO-specific requirements. The Program QC Manager appoints the Project QC Manager and Alternate Project QC Manager. The following subsections identify the QC team for this CTO and highlight their responsibilities. Attachments 3 and 4 include copies of appointees' letters of designation.

2.1.1 Project Quality Control Manager

The Project QC Manager, who reports directly to the Program QC Manager, will work closely with the PM, Radiation Safety Officer, Radiation Control Supervisor, and Navy QC representatives to assure that the work is performed in compliance with the specifications contained in the approved WP (CH2M Hill, Inc., 2019) and this WPA. The Project QC Manager has the authority to stop work if contract requirements are not being met. Attachment 2 lists the Project QC Manager's responsibilities. In the event the Project QC Manager is unavailable, an Alternate Project QC Manager will assume this responsibility.

2.1.2 Alternate Project Quality Control Manager

In the event the Project QC Manager is unavailable, an Alternate Project QC Manager will assume the QC responsibilities outlined in Attachment 2 and described in this CQC Plan. Attachment 4 identifies the Alternate Project QC Managers designated for this.

The project team, including subcontractors, will use procedures in this subsection to ensure quality and achieve project objectives.

2.2 Quality Control Directives

The following QCDs apply to this CTO:

- QCD 1.0, "Project Quality Control Personnel Duties, Qualifications, and Authority"
- QCD 2.0, "Project Quality Control Plans"
- QCD 3.0, "Design Review"
- QCD 4.0, "Coordination and Mutual Understanding Meeting"
- QCD 5.0, "Project Quality Control Meetings"
- QCD 6.0, "Submittals"
- QCD 7.0, "Documentation"
- QCD 8.0, "Quality Control Certifications"
- QCD 9.0, "Three Phases of Control"
- QCD 10.0, "Completion Inspections"
- QCD 11.0, "Testing"
- QCD 12.0, "Corrective Action Requests and Non-compliance"
- QCD 13.0, "Rework"
- QCD 14.0, "Change Control"
- QCD 15.0, "Organization and Personnel Certifications Log"
- QCD 16.0, "Field Startup"
- QCD 17.0, "PM Turnover"
- QCD 18.0, "Training"
- QCD 19.0 "Quality Audits"
- QCD 21.0 "Quality Control for Geophysical Surveys"
- QCD 22.0 "Technical Publications"

- QCD 23.0 "Environmental Records Program"
- QCD 24.0 "Tablets"

QCDs 1.0 through 23.0 are provided in the *Final Corporate Quality Management Plan, Contract N62473 17 D 0006, Environmental Multiple Award Contract for Remediation of Radiological Contaminants (RADMAC II)* (CB&I Federal Services LLC, 2017). QCD 24.0 was developed for this CTO and is included as Attachment 10.

2.3 APTIM Quality Procedures

The following documents describe the administrative and technical requirements for uniform quality performance for this project. These procedures are developed, maintained, and hosted corporately within the AMS. APTIM employees can access procedures. Procedures will be provided to the government upon request (APTIM, 2019a).

- AMS-720-01-PR-00130, "Quality Management Organization"
- EIP-Q-002, "Stop Work Notice for Quality Related Issues"
- AMS-720-01-PR-00120, "Project Quality Plans" (supersedes EIG-Q-003, "Project Quality Plan")
- AMS-720-02-PR-00480, "Receiving Inspection" (supersedes EIP-Q-004, "Receipt Inspection")
- AMS-720-01-PR-00230, "Construction Inspection Program" (supersedes EIP-Q-005, "Inspection")
- AMS-720-01-PR-00290, "Inspection and Test Plans" (supersedes EIP-Q-005, "Inspection" and EIP-Q-016, "Test Control")
- AMS-720-01-GL-00230, "Guidelines for Quality Surveillance Activities" (supersedes EIP-Q-006, "Surveillance")
- AMS-720-01-PR-00150, "Identification, Control, and Disposition of Nonconforming Product" (supersedes EIG-Q-007, "Nonconformance Reporting")
- AMS-720-01-PR-00170, "Corrective and Preventive Action" (supersedes EIG-Q-008, "Corrective Action")
- AMS-720-01-PR-00220, "Management System Audits" (supersedes EIG-Q-009, "Quality Audits")
- AMS-720-01-GL-00223, "Qualification and Assessment of Internal Audit Personnel" (supersedes EIP-Q-010, "Auditor and Lead Auditor Qualification Program")
- EIP-Q-014, "Management Assessment"
- EIG-Q-015, "Quality Councils"

Note: QCDs take precedence over these procedures

3.0 OUTSIDE ORGANIZATIONS

To manage subcontractors and vendors effectively, APTIM carefully selects and prequalifies each firm. APTIM continuously and aggressively manages subcontractor costs, schedule, safety, and quality performance. The pre-qualification process ensures that subcontractors bring the same focus on quality, cost control, schedule discipline, and commitment to customer satisfaction as APTIM. Once an award is made to a subcontractor, APTIM manages the quality of the subcontractor's performance through the three-phase inspection process (Section 9.0).

Laboratories providing environmental analyses are accredited by the U.S. Department of Defense Environmental Laboratory Accreditation Program, as noted in the sampling and analysis plan (SAP) addendum (Appendix A to this WPA) prepared under this contract for Parcel G.

Attachment 5 provides names and qualifications of subcontractors proposed for this project. Subcontractors will be subject to APTIM QC procedures. APTIM will monitor testing and inspection procedures (Section 5.0).

4.0 SUBMITTAL PROCEDURES

APTIM will manage submittals, as required by contract. The Project QC Manager will review and approve items prior to submittal. The Project QC Manager will certify that submittals are in compliance with contract requirements. The Project Radiation Safety Officer or designee will review radiological data prior to submittal. QCD 6.0 further discusses submittals.

5.0 TESTING

In addition to implementing the three phases of the control system to ensure the overall quality of each definable feature of work (DFOW), APTIM will make use of formal testing procedures where applicable (including tests performed by subcontractors and/or off-site laboratories) to ensure conformance to applicable specifications and verify that control measures are adequate to provide a finished product, which conforms to contract requirements. The Project QC Manager will ensure that sampling and testing are managed and performed, as required by contract.

5.1 Testing Plan and Log

If necessary, the Project QC Manager will use the Testing Plan and Log (Attachment 7) to manage project testing. As tests are performed, the Project QC Manager will record on the log the date the test was performed and the date the test results were forwarded to the Contracting Officer (KO) or Contracting Officer Representative (COR) as applicable. The Project QC Manager will attach a copy of the updated log to the last Daily Contractor QC Report of each month. Chemical or radiological sampling and analyses are normally not included in the log since the SAP (Appendix B to the WP [CH2M Hill, Inc., 2019]) and SAP Addendum (Appendix A to this WPA) implements requirements.

5.2 Testing and Documentation

APTIM will submit test reports containing test results to the KO and/or COR as required by the contract. Test reports will cite applicable contract requirements, tests or analytical procedures used, and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, APTIM will notify the KO and/or COR immediately. APTIM will submit the signed test reports, certifications, and other documentation to the KO and/or COR via the Project QC Manager. The Project QC Manager will submit a summary report of field tests in the Daily Contractor QC Report. QCD 11.0 further discusses testing.

6.0 REWORK ITEMS, NON-COMPLIANCES, AND CORRECTIVE ACTION REQUESTS

The Project QC Manager will review any instances where materials, equipment, or activities fail to meet the specified requirements, and will take appropriate action to prevent future occurrences.

6.1 Rework

A rework item is work that does not comply with the contract. There is no requirement to report a rework item that is corrected the same day it is discovered. APTIM and subcontractor personnel will be responsible for identifying rework items and reporting them to the Project QC Manager. The Project QC Manager will coordinate with the Project Superintendent to ensure rework items are corrected in a timely manner. The Project QC Manager will maintain a Rework Items List of work that does not comply with the contract, including those identified by the KO or his/her representative. The Project QC Manager will report identified and corrected items in the Daily Contractor QC Report and during Project QC Meetings and will attach a copy of the Rework Items List to the last Daily Contractor QC Report of each month. QCD 13.0 further discusses rework items.

6.2 Non-Compliances

The KO may also notify APTIM of any detected non-compliance with the contract. APTIM will take immediate corrective action after receipt of such notice. Such notice, when delivered to APTIM at the work site, will be deemed sufficient for the purpose of notification. QCD 12.0 further discusses non-compliances.

6.3 Corrective Action Requests

APTIM will identify, track, and correct items, processes, and services that do not meet established requirements. Correction will focus on determining the cause of the deficiency and corrective actions will address the deficiency and prevent recurrence. QCD 12.0 further discusses Corrective Action Requests.

6.4 Procedures for Tracking Laboratory Deficiencies

Laboratory testing requirements for radiological analyses and procedures for identifying and managing any deficiencies are addressed under the SAP (Appendix B to the WP [CH2M Hill, Inc., 2019]) and SAP Addendum (Appendix A to this WPA).

7.0 DOCUMENTATION

A variety of documents will be developed at specified points or intervals during the course of this project to support the QC process. These items will be submitted to the government or maintained by APTIM and made available for review, as required. QC-related project documentation may include the following:

- Testing plan and log
- Daily CQC reports
- Three-phase control inspection checklists (preparatory, initial, and follow-up)
- QC meeting minutes
- Rework items list
- Non-compliance/corrective action reports
- As-built drawings
- Material receipt inspections

QCD 7.0 further discusses documentation.

7.1 Daily Reports

APTIM will submit reports for each day that work is performed, as required by the contract. Reports will be attached to the Daily Contractor QC Report. Reports may also be submitted on a weekly basis depending on the nature of work and with approval from the Navy. The reporting of work will be identified by terminology consistent with the construction schedule. The "remarks" section of reports will include directions received, construction deficiencies and problems, QC problems, deviations from project plans, conflicts or errors in the drawings or specifications, field changes, instructions given and corrective actions taken, work progress and delays, safety hazards, meetings held, and visitors to the work site.

7.1.1 Daily Contractor Quality Control Report

The Project QC Manager is responsible for preparing and signing the Daily Contractor QC Report. Other QC, production, and health and safety documents may be attached to the report. The Project QC Manager will submit the report to the Navy the next working day after each day work is performed and for every seven consecutive calendar days of no-work.

7.1.2 Daily Contractor Production Report

The Project Superintendent or designee is responsible for preparing and signing the Daily Contractor Production Report. The report will be attached to the Daily Contractor QC Report.

7.1.3 Quality Control Specialist Report

If a QC Specialist is assigned, he/she will prepare, sign, and date a report for each day that work is performed in his/her area of responsibility. The report will include the same documentation requirements as are submitted with the Daily Contractor QC Report.

7.2 Quality Control Meeting Minutes

After the start of construction, the Project QC Manager will commence holding weekly QC meetings with the Site Superintendent, QC staff, and Site Safety and Health Officer. The Navy Remedial Project Manager/COR, Caretaker Site Office, Resident Officer in Charge of Construction, and Radiological Affairs Support Office may also attend these meetings, as required.

As a minimum, the following will be accomplished at each QC meeting as needed:

- Review the minutes of the previous meeting
- Review the status of work, inspections, testing, rework, and submittals
- Review the work, inspections, and testing to be accomplished in the next two weeks and documentation required
- Project schedule review
- Resolve QC, production, and safety concerns
- Address items that may require revising the project plans
- Review the accident prevention plan and/or activity hazard analyses as necessary
- Review environmental requirements and procedures as necessary
- Review the status of submittals including but not limited to the submittal log, project schedule, and as-built drawings, as applicable.
- Review the following, as applicable:
  - Waste Management Plan
  - Radiological Protection Plan
  - Status of training completion and progress

The Project QC Manager will prepare the minutes of the meetings and provide a copy to the COR within two working days after the meeting.

7.3 Quality Control Validation

APTIM will maintain files of original documents, including project documents, in a home office. Copies of project documents will also be filed in the field office. Project files include, but are not limited to, inspection reports and checklists, Testing Plan and Log, Rework Items List, and punch lists. Reports are required from the QC Specialists (if assigned) for each day that work is performed in their area of responsibility. QC Specialist reports will include the same documentation requirements as the Daily Contractor QC Report for their area of responsibility. QC Specialist reports are to be prepared, signed, and dated by the QC Specialists and will be attached to the Daily Contractor QC Report prepared for the same day.

7.4 As-Built Drawings

The Project QC Manager will ensure the as-built drawings are kept current on a daily basis and marked to show deviations from the contract drawings identified with the appropriate modifying documentation. The Project QC Manager or QC Specialist assigned to that area of responsibility will initial each revision. Upon completion of work, the Project QC Manager will certify the drawings, attesting to their accuracy, and ensure that they are submitted to the KO per QCD 8.0.

8.0 DEFINABLE FEATURES OF WORK

A DFOW is a representative portion of work that is separate and distinct from any other stage of work. Eleven DFOWs have been identified for this project (Attachment 8), and are further described in the WP (CH2M Hill, Inc., 2019). Activities associated with the project will be conducted in accordance with the following documents for this project, which provide specific methods and requirements for implementation of the DFOWs:

- WP and this WPA
- SAP (Appendix B to the WP) and SAP Addendum (Appendix A to this WPA)
- *Accident Prevention Plan/Site Safety and Health Plan, Radiological Investigation, Survey, and Reporting, Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California* (APP/SSHP; APTIM, 2019c)
- *Radiation Protection Plan, Radiological Investigation, Survey, and Reporting, Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California* (APTIM, 2019b)

The DFOWs for this radiological removal activities (Attachment 8) include the following:

- DFOW 1: Mobilization and site setup
- DFOW 2: Maintenance of best management practices
- DFOW 3: Utility clearance and land survey
- DFOW 4: Radiological surveys
- DFOW 5: Concrete and/or asphalt removal
- DFOW 6: Excavation and backfill
- DFOW 7: Soil screening
- DFOW 8: Direct Push Technology soil sampling
- DFOW 9: Site Restoration
- DFOW 10: Waste transportation and disposal
- DFOW 11: Demobilization

9.0 THREE PHASES OF CONTROL

The Project QC Manager manages the three phases of control to adequately cover on-site and off-site DFOWs. The Project QC Manager may assign the Task Leader for DFOWs to other project personnel, including the Project Engineer, Project Geologist, Project Superintendent, QC Specialist, etc.

9.1 Preparatory Phase

The Project QC Manager will notify the CO and/or COR, as applicable at least two work days, two weeks for off-site work, in advance of each preparatory phase meeting. The assigned lead shown on the project DFOW matrix will conduct the meeting. At a minimum, the Project QC Manager, QC staff, Project Superintendent, Foreman, and Site Safety and Health Officer will attend. When a subcontractor will perform work, that subcontractor's superintendent will attend.

The following will occur during the preparatory phase:

- Review each paragraph of the applicable specification sections.
- Review the contract drawings.
- Verify that field measurements are as indicated on construction and/or shop drawings before confirming product orders, in order to minimize waste due to excessive materials.
- Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required.
- Review the Testing Plan and Log and ensure that provisions have been made to provide the required QC testing.
- Examine the work area to ensure that the required preliminary work has been completed.
- Coordinate the schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- Examine the required materials, equipment, and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data.
- Discuss construction methods, construction tolerances, workmanship standards, and the approach that will be used to provide quality construction by planning ahead and identifying potential problems.
- Review the APP/SSHP (APTIM; 2019c) and appropriate activity hazard analyses to ensure that applicable safety requirements are met and that required material safety data sheets are submitted.

Results of the preparatory phase will be documented in the Inspection Report and attached to the Daily Contractor QC Report.

9.2 Initial Phase

The Project QC Manager will notify the KO and/or COR at least two work days, two weeks for off-site work, in advance of each initial phase. The assigned lead shown on the project DFOW matrix will perform the initial phase and he/she will observe the initial segment of the DFOW to ensure that the work complies with contract requirements. Results of the initial phase will be documented in the Inspection Report and attached to the Daily Contractor QC Report. The following will be performed:

- Establish the quality of workmanship required
- Resolve conflicts
- Ensure that testing is performed by the approved laboratory
- Check work procedures for compliance with the APP/SSHP (APTIM; 2019c) and the appropriate activity hazard analyses to ensure that applicable safety requirements are met

9.3 Follow-up Phase

The assigned lead shown on the project DFOW matrix will perform the follow-up phase for ongoing work daily, or more frequently as necessary, until the completion of the work. Results of the follow-up phase will be documented in the Inspection Report and attached to the Daily Contractor QC Report. The following will be performed:

- Ensure the work is in compliance with contract requirements
- Maintain the quality of workmanship required
- Ensure that testing is performed by the approved laboratory
- Ensure that rework items are being corrected
- Perform safety inspections

9.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases will be conducted for a deficiency if the quality of ongoing work remains or becomes unacceptable; there are changes in the applicable QC organization; there are changes in the on-site production supervision or work crew; work is resumed after substantial period of inactivity; or other problems develop. QCD 9.0 further discusses the three phases of control.

10.0 COMPLETION INSPECTIONS

This section describes project inspections that demonstrate completeness. Inspections may include a punch-out inspection, pre-final inspection, and final acceptance inspection.

10.1 Punch-Out Inspection

The Project QC Manager will manage completion inspections. Near the completion of work or to verify that statement of objectives or performance work statements are met, the Project QC Manager will ensure work is inspected and a punch list developed. Punch list items include items that do not conform to the approved drawings, specifications and contract, and remaining rework items. The punch list will indicate the estimated correction dates of these items. A copy of the punch list will be provided to the COR, if required by contract. The Project QC Manager will ensure corrected items are verified. Once this is accomplished, the Project QC Manager will schedule a pre-final inspection.

10.2 Pre-Final Inspection

The Navy will perform a pre-final inspection to verify that fieldwork is complete. A Navy punch list may be developed as a result of this inspection. The Project QC Manager will ensure that the items on this list are corrected prior to notifying the Navy that a final inspection with the client can be scheduled. Items noted during the preliminary-final inspection must be corrected in a timely manner and be accomplished before the contract completion date for the work.

10.3 Final Acceptance Inspection

If required by contract, the Project QC Manager will notify the KO and/or COR at least 14 calendar days prior to the date a final acceptance inspection can be held, stating that items previously identified during the pre-final will be corrected and acceptable, along with any other unfinished contract work, by the date of the inspection. The Project QC Manager, Project Superintendent, and others deemed necessary will be present during the inspection with the Navy. If deficiencies remain or are identified during the inspection, the parties will agree on a course of action. QCD 10.0 further discuses completion inspections.

10.4 Inspection Documentation

In accordance with QCD 7.0, the Project QC Manager will maintain inspection records.

11.0 REFERENCES

Aptim Federal Services, LLC (APTIM), 2019a, *APTIM Management System*.

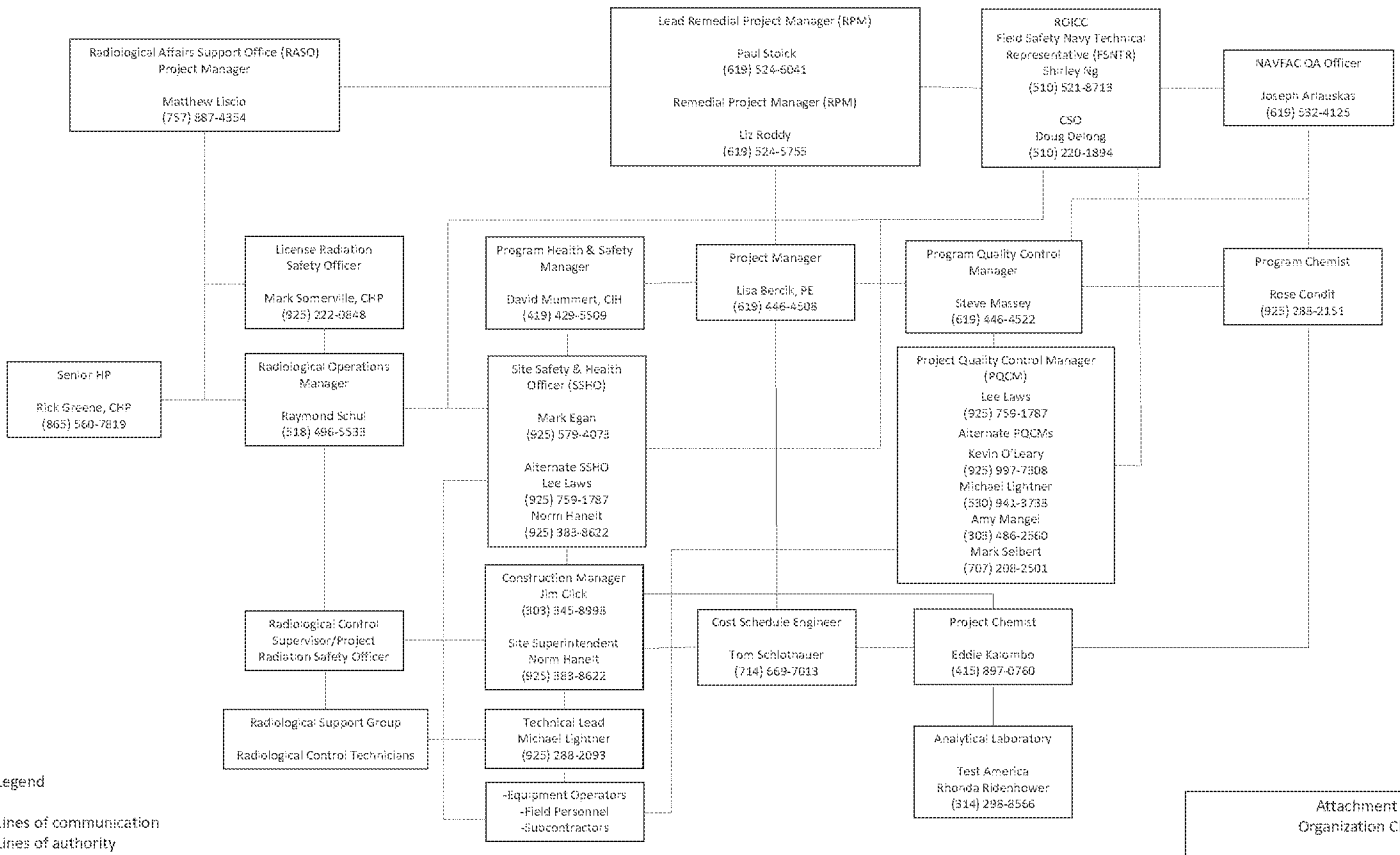
APTIM, 2019b, *Radiation Protection Plan, Radiological Investigation, Survey, and Reporting, Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California*.

APTIM, 2019c, *Accident Prevention Plan/Site Safety and Health Plan, Radiological Investigation, Survey, and Reporting, Parcel G, Former Hunters Point Naval Shipyard, San Francisco, California.*

CB&I Federal Services LLC, 2017, *Final Corporate Quality Management Plan, Contract N62473-17-D-0006, Environmental Multiple Award Contract for Remediation of Radiological Contaminants (RADMAC II)*, May.

CH2M Hill, Inc., 2019, *Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, California*.

Attachment 1
Quality Control Organization Chart



*APTIM, as the Prime Contractor, is the controlling authority for all work site safety and health of subcontractors.

Attachment 1
Organization Chart

Investigation, Survey, and Reporting, Parcel G
Hunters Point Naval Shipyard
San Francisco, California

Attachment 2
Project Quality Control Duties and Responsibilities

Project Quality Control Duties and Responsibilities

Duty	Responsibility	QCD
Pre-Construction Phase		
Establish Personnel Requirements	PM	1.0
Review Personnel Resumes	PM	1.0
Assign Duties	PM	1.0, 2.0
Prepare Organization Chart	PQCM	1.0, 2.0
Prepare Letters of Designation	PQCM	1.0, 2.0
Review Plans and Designs	PM, PQCM	3.0, 7.0
Identify Subcontractors	PM	1.0, 2.0
Submit Laboratory Information	PQCM	1.0, 2.0
Attend Training	all	1.0
Prepare Submittal Register	PQCM	2.0, 6.0
Prepare Definable Features of Work Matrix	PQCM	2.0, 9.0
Prepare Testing Plan and Log	PQCM	2.0, 11.0
Prepare Rework Items List	PQCM	2.0, 13.0
Assemble Forms	PQCM	2.0
Assemble Personnel Certifications	PQCM	8.0, 15.0
Conduct Coordination and Mutual Understanding Meeting	PQCM	4.0
Construction Phase		
Ensure Construction Quality	PM	1.0, 14.0, 16.0, 17.0
Review Definable Features of Work	PQCM	9.0
Ensure Submittals Approved and Submitted	PQCM	3.0, 6.0, 7.0
Conduct Project QC Meetings	PQCM	5.0
Conduct Preparatory Meetings	PQCM	9.0
Conduct Preparatory Inspections	PQCM	9.0
Conduct Initial Inspections	PQCM	9.0
Conduct Follow-Up Inspections	PQCM	9.0
Conduct Completion Inspections	PQCM	10.0
Manage Corrective Action Requests	PQCM	12.0
Manage Rework Items	PQCM	13.0
Provide QC Certifications	PQCM	8.0

Notes:

The PQCM may assign the lead for inspections to the other project personnel: Task Lead, Project Site Superintendent, etc.

PM	*project manager*
PQCM	*project quality control manager*
QC	*quality control*
QCD	*quality control directive*

Attachment 3
Project Quality Control Manager Letter of Designation

Project Construction Quality Control Manager

Letter of Designation

Contract Number: N62473-17-D-0006
Contract Task Order: N6247318F5065

Radiological Investigation, Survey, and Reporting, Parcel G
Former Hunters Point Naval Shipyard, San Francisco, California

April 2019

Mr. Lee Laws:

This letter will serve to assign you as the Aptim Federal Services, LLC Project Quality Control (QC) Manager for the above-captioned contract task order. In this capacity, you will report directly to me and will administer the established requirements of the contract and Project QC Plan. In the case where you are not able to perform the Project QC Manager's duties, Mr. Kevin O'Leary, Mr. Michael Lightner, and/or Ms. Amy Meldrum will serve as your Alternate Project QC Manager. You will manage the three phases of control. You are authorized to stop work that is not in accordance with the contract and will exercise this authority consistent with Aptim Federal Services, LLC policies and procedures. You are authorized to approve submittals that have been certified by qualified submittal reviewers as identified in the organization chart for this task order and as necessary to ensure the quality of the work, and direct the removal and/or replacement of nonconforming materials or work.

Your Construction Quality Management certificate and resume are classified as Personal Identifiable Information and not included in the Project QC Plan. These records will be furnished to the government upon request.

If you have questions or require additional information, please contact me at 619.987.6557.

Sincerely,
Aptim Federal Services, LLC

Stephen Massey
Program QC Manager

Attachment 4
Alternate Project Quality Control Manager
Letter of Designation

Alternate Project Construction Quality Control Manager

Letter of Designation

Contract Number: N62473-17-D-0006
Contract Task Order: N6247318F5065

Radiological Investigation, Survey, and Reporting, Parcel G
Former Hunters Point Naval Shipyard, San Francisco, California

April 2019

Kevin O'Leary, Mr. Michael Lightner, Ms. Amy Meldrum, Mr. Mark Egan:

This letter will serve to assign you as Aptim Federal Services, LLC Alternate Project Quality Control (QC) Manager for the above-captioned contract task order. In the case where the designated Project QC Manager, Mr. Lee Laws is unable to perform the Project QC Manager's duties, you will serve in that capacity with his responsibilities and authorities, report directly to me, and administer the established requirements of the contract and Project QC Plan. You will manage the three phases of control. You are authorized to stop work that is not in accordance with the contract and will exercise this authority consistent with Aptim Federal Services, LLC policies and procedures. You are granted the authority to approve submittals that have been certified by qualified submittal reviewers as identified in the organization chart for this task order and as necessary to ensure the quality of the work, and direct the removal and/or replacement of nonconforming materials or work. You are authorized to act as an alternate for two weeks at one time and not more than 30 workdays during a calendar year. In the case where it is believed that these time periods will be exceeded, you must notify me.

Your Construction Quality Management certificates and resumes are classified as Personal Identifiable Information and not included in the Project QC Plan. These records will be furnished to the government upon request.

If you have questions or require additional information, please contact me at 619.987.6557.

Sincerely,
Aptim Federal Services, LLC

Stephen Massey
Program QC Manager

Attachment 5
Outside Organizations

Outside Organizations

Organization Name/Address/Phone	Description of Services
TBD	Asphalt repair
TBD	Analytical laboratory services
TBD	Air monitoring analytical services
TBD	Drilling
TBD	Waste transportation and disposal
TBD	Heavy equipment rental
TBD	Utility location
TBD	Geotechnical testing
Harris Blade	Temporary facilities
TBD	Data validation
TBD	Soil sorter

Notes:

TBD *to be determined*

Attachment 6
Submittal Register

SUBMITTAL REGISTER

CONTRACT NUMBER
N62473-17-D-0006
CTO N6247318F5065

Title and Location: Radiological Investigation, Survey, and Reporting, Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Contractor: Aptim Federal Services, LLC

Specification Section
Scope of Work

Transmittal No.	Item No.	Specification Paragraph No.	Description of Item Submitted	Type of Submittal										Classification		Review er	Contractor Schedule Dates			Contractor Action			Government Action		Remarks
				Data	Drawings	Instructions	Schedules	Statements	Reports	Certificates	Samples	Records		Information only	Government approved		Submit	Approval needed by	Material needed by	Code	Date	Submit to government	Code	Date	
A	B	C	D	E	F	G	H	I	J	K	L	M		N	O	P	Q	R	S	T	U	V	W	X	Y
	001	Section 2.1.1	Copy of NRC and CA License and SOPs					X		X				X											
	002	Section 2.2.1	Kickoff Meeting Minutes					X							X	RPM									Within 10 days of meeting
	003	Section 2.1.1	Monthly Status Reports					X						X		RPM									
	004	Section 2.2	Internal Draft Work Plan Documents Addenda		X		X	X							X	RPM									
	005	Section 2.2	Draft Work Plan Documents Addenda		X		X	X								RPM									
	006	Section 2.2	Draft Final Work Plan Documents Addenda		X		X	X							X	RPM									
	008	Section 2.2	Final Work Plan Documents Addenda		X		X	X							X	RPM									
	009	Section 2.2.7	Draft Radiological Protection Plan		X			X							X	Navy									
	010	Section 2.2.7	Final Radiological Protection Plan		X			X							X	Navy									
	011	Section 2.2.3	Internal Draft APP/SSHP		X			X							X	Navy NMPHC									
	012	Section 2.2.3	Final APP/SSHP		X			X							X	Navy NMPHC									
	013	03 30 00	Concrete Mix Design	X											X	RPM									
	014	03 30 00	Cement							X				X		RPM									

SUBMITTAL REGISTER

CONTRACT NUMBER
N62473-17-D-0006
CTO N6247318F5065

Title and Location: Radiological Investigation, Survey, and Reporting, Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Contractor: Aptim Federal Services, LLC

Specification Section
Scope of Work

Transmittal No.	Item No.	Specification Paragraph No.	Description of Item Submitted	Type of Submittal									Classification		Review Code	Contractor Schedule Dates			Contractor Action			Government Action		Remarks
				Data	Drawings	Instructions	Schedules	Statements	Reports	Certificates	Samples	Records	Information only	Government approved		Submit	Approval needed by	Material needed by	Code	Date	Submit to government	Code	Date	
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
	015	03 30 00	Aggregate							X			X		RPM									
	016	03 30 00	Admixtures							X			X		RPM									
	017	03 30 00	Welded Wire Fabric							X			X		RPM									
	018	31 00 00	Confirmation Screening Sampling Results	X					X		X			X	Navy									
	019	31 00 00	Moisture Content and Density Tests in-Place Fill						X				X		RPM									
	020	32 10 00	Trial batch reports						X					X	RPM									
	021	31 00 00	Mix design						X					X	RPM									
	022	31 00 00	Asphalt concrete						X						RPM									
	023	32 10 00	Density	X					X						RPM									
	024	31 00 00	Thickness	X					X						RPM									
	025	32 10 00	Straightedge test	X					X						RPM									
	026	Section 2.5.2	Internal Draft Remedial Action Completion Report	X	X			X	X			X		X	RPM									
	027	Section 2.5.2	Draft Remedial Action Completion Report	X	X			X	X			X		X	RPM									
	028	Section 2.5.2	Draft Final Remedial Action Completion Report	X	X			X	X			X		X	RPM									
	029	Section 2.5.2	Final Remedial Action Completion	X	X			X	X			X		X	RPM									

SUBMITTAL REGISTER																							CONTRACT NUMBER N62473-17-D-0006 CTO N6247318F5065
Title and Location: Radiological Investigation, Survey, and Reporting, Parcel G, Hunters Point Naval Shipyard, San Francisco, California															Contractor: Aptim Federal Services, LLC								Specification Section Scope of Work
				Type of Submittal										Classification			Contractor Schedule Dates			Contractor Action			Government Action		Remarks
Transmittal No.	Item No.	Specification Paragraph No.	Description of Item Submitted	Data	Drawings	Instructions	Schedules	Statements	Reports	Certificates	Samples	Records	Information only	Government approved	Reviewer	Submit	Approval needed by	Material needed by	Code	Date	Submit to government	Code	Date	
			Report																					
	030	Section 2.4.3	Internal Draft Removal Site Evaluation Report	X	X			X	X			X		X	RPM									
	031	Section 2.4.3	Draft Removal Site Evaluation Report	X	X			X	X			X		X	RPM									
	032	Section 2.4.3	Draft Final Removal Site Evaluation Report	X	X			X	X			X		X	RPM									
	033	Section 2.4.3	Final Removal Site Evaluation Report	X	X			X	X			X		X	RPM									

Attachment 7
Testing Plan and Log

Testing Plan and Log

Contract No. N62473-17-D-0006 Contract Task Order N6247318F5065			Parcel G, Former Hunters Point Naval Shipyard San Francisco, California							Contractor APTIM	
Specification Section and Paragraph Number	Test Procedure	Test Name	Accredited/ Approved Laboratory		Sampled By	Location of Test		Frequency of Test	Date Completed	Date Forwarded to Contracting Officer	Remarks
			Yes	No		On Site	Off Site				
31 00 00	California Test 301	R Value					X	1/source			fill under asphalt
31 00 00	ASTM D 422	Grain Size					X	1/2000 cuyd			fill
31 00 00	ASTM D 4318	Atterberg Limits					X	1/2000 cuyd			fill
31 00 00	ASTM D 698	Compaction					X	1/5,200 cuyd			fill
31 00 00	ASTM 2487	Classification					X	1/2000 cuyd			fill
31 00 00	ASTM D 2216	Moisture				X		1/2000 cuyd			fill
31 00 00	ASTM D 6938	Density & Moisture				X		1/10,000 sf/lift			Fill/subgrade
31 00 00	ASTM D 1556	Density, Sand Cone				X		1/150,000 sf/lift			Subgrade (minimum one per day)
31 00 00	ASTM D 2216 (with cor. to Nuclear gauge D 6938)	Moisture				X		1/150,000 sf/lift			Subgrade (minimum one per day)
31 00 00	Modified Proctor ASTM D 1557	Compaction Curves					X	1/5000 cuyd or change in material			fill

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Contract No. N62473-17-D-0006 Contract Task Order N6247318F5065			Parcel G, Former Hunters Point Naval Shipyard San Francisco, California							Contractor APTIM	
Specification Section and Paragraph Number	Test Procedure	Test Name	Accredited/ Approved Laboratory		Sampled By	Location of Test		Frequency of Test	Date Completed	Date Forwarded to Contracting Officer	Remarks
			Yes	No		On Site	Off Site				
32 10 00	ASTM D 2922	Density				X		1/10,000 sf/lift			AB
32 10 00	ASTM D 3017	Moisture					X	1/source			AB
32 10 00	ASTM D 2172	Extraction				X		2/day/mix			bituminous mix
32 10 00	AASHTO T 30	SieveF				X		2/day/mix			bituminous mix
32 10 00	ASTM D 1559	Stability and Flow				X		2/day/mix			bituminous mix
32 10 00	AASHTO T 230	Density					X	3 cores/200 tons			pavement
32 10 00	Per Section 3.3.2.2c of spec	Straightedge Test				X					

Notes:

AASHTO	*American Association of State and Highway Transportation Officials*
AB	*aggregate base*
APTIM	*Aptim Federal Services, LLC*
ASTM	*American Society for Testing and Materials*
cuyd	*cubic yards per day*
sf	*square foot*

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Attachment 8
Definable Features of Work Matrix

Definable Features of Work Matrix
Contractor Quality Control Plan
Radiological Investigation, Survey, and Reporting, Parcel G
Hunters Point Naval Shipyard
San Francisco, California
Contract Number N62473-17-D-0006
Contract Task Order N6247318F5065

Plan/ Specification Section	Schedule Cross Reference	Feature of Work	Task Lead	Preparatory	Initial	Follow-Up	Completion
WP/3.6.2	W.E. 3	Mobilization and site setup	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt
SWMP/3.0	W.E. 3	Maintenance of BMPs	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt
WP/3.6.2	W.E. 3	Utility Clearance and land survey	Michael Lightner	Lee Laws	Lee Laws	Michael Lightner	Michael Lightner
WP/3.4, 3.5, 3.6	W.E. 3	Radiological surveys	Randall Killpack	Lee Laws	Lee Laws	Randall Killpack	Randall Killpack
WP/3.6.2	W.E. 3	Concrete and/or asphalt removal	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt
WP/3.6.3, 3.6.5, 3.6.7	W.E. 3	Excavation and backfill	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt
WP/3.6.3	W.E. 3	Soil screening	Randall Killpack	Lee Laws	Lee Laws	Randall Killpack	Randall Killpack
WP/3.6.4	W.E. 3	DPT soil sampling	Michael Lightner	Lee Laws	Lee Laws	Michael Lightner	Michael Lightner
WP/3.6.7	W.E. 3	Site restoration	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt
WP/7.3	W.E. 3	Waste transportation and disposal	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt
WP/3.6.8	W.E. 3	Demobilization	Norm Hanelt	Lee Laws	Lee Laws	Norm Hanelt	Norm Hanelt

Definable Features of Work Matrix
Contractor Quality Control Plan
Radiological Investigation, Survey, and Reporting, Parcel G
Hunters Point Naval Shipyard
San Francisco, California
Contract Number N62473-17-D-0006
Contract Task Order N6247318F5065

Notes:

BMP	*best management practices*
DPT	*direct push technology*
SD	*storm drain*
SS	*sanitary sewer*
TBD	*to be determined*
W.E.	*work element*
WP	*Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, California*

Attachment 9
Organization and Personnel Certifications

Organization and Personnel Certifications Log
Definable Features of Work Matrix
Contractor Quality Control Plan
Radiological Investigation, Survey, and Reporting, Parcel G
Hunters Point Naval Shipyard
San Francisco, California
Contract Number N62473-17-D-0006
Contract Task Order N6247318F5065

Definable Feature of Work	Certification Requirement	Code	Organization	Individual	Verified by/Date Verified	Certificate Expires
Project Tasks	40-Hour Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response, including 8-Hour Refresher, Radiological Awareness Training	P	APTIM	(personnel)		
Lab Analysis	U.S. Department of Defense Environmental Laboratory Accreditation Program	S				

Legend:

Column 1, Definable Feature of Work: Refer to Construction Quality Control Plan table for list of definable features of work. List in order.

Column 2, Certification Requirement: State the certification required for the subcontractor, supplier, and/or individual.

Column 3, Code: S = Certificate required for the firm, that is, subcontractor or supplier; P = certificate required for the person performing the work.

Column 4, Organization: Subcontractor or supplier organization name

Column 5, Individual: Name of certified individual (note: if certification requirement only applies to the firm, note name of person who provided certificate).

Column 6, Verified By/Date Verified: APTIM individual who verified certificates for organization and/or individuals. Verification required no later than Preparatory Inspection.

Column 7, Certificate Expires: Note the certificate expiration date.

Notes:

This log will be included in the Construction Quality Control Plan as an appendix with columns 1, 2, and 3 are filled in. Remaining columns will be completed when information becomes available.

APTIM *Aptim Federal Services, LLC*

Attachment 10
Procedures

QCD 24.0: TABLETS

1.0 BACKGROUND

APTIM will utilize tablets and the EQuIS enterprise database to enhance data integrity and defensibility during project execution. For example, project staff will use tablets to identify soil-sampling locations, photograph sample media, scan barcodes, create geolocation timestamps, and create chain-of-custodies (CoCs). Data from each tablet will be uploaded daily to APTIM's EQuIS database. At the discretion of the project manager and/or program chemist, tablets will not be used for construction monitoring sampling, including but not limited to perimeter air monitoring, water quality monitoring, waste characterization sampling, and stormwater sampling.

2.0 PROCEDURE

General procedures for use of tablets for sampling are outlined as follows. Project-specific instructions based on the guide (see attachment) will be provided prior to implementing tablets in the field.

1. Customize table guideline attachment to define the tablet application and EQuIS database functionality based on project-specific requirements (i.e., project workflow, screens, valid values, forms, and reports).
2. Pilot test tablets and EQuIS database with simulated (mock) data and actual field conditions to verify proper tablet function, correct valid values (e.g., sample location, ID, and custody nomenclature), screens, validate efficient tablet performance (speed), end-user ease of use ("user–friendly") and reports.
3. Train project staff who be using tablets and the EQuIS database based on their assigned project responsibilities to verify effective implementation and resolve questions.
4. Collect samples in accordance with the project-specific attachment and sampling and analysis plan.
5. Record sample information on tablet as prompted by the software and outlined in the attachment.
6. When sampling task is complete, produce the CoC in accordance with the attachment. Print CoC, sign, and ship samples in accordance with the attachment and the project-specific sampling and analysis plan.

7. Upload data on tablets to EQuIS daily by producing an EDP export in accordance with the attachment. Data will be uploaded a minimum of once per day.

Attachment

1.0 TABLET LOGIN , STARTING EDGE and SHUTTING DOWN.

LOGIN

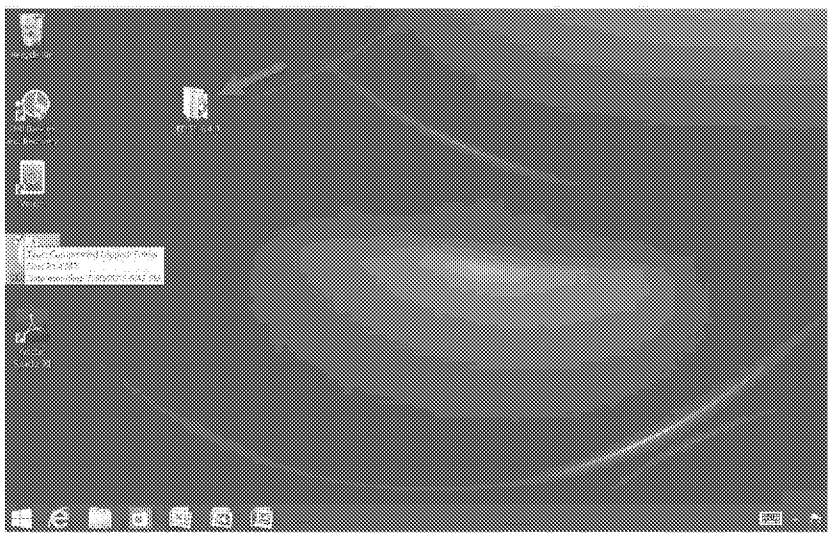
1. Turn the tablet on. You will see a screen with the time and date. Swipe the screen up and you will see a log in page.
2. Login to tablets using the following password:

   XXXXXX

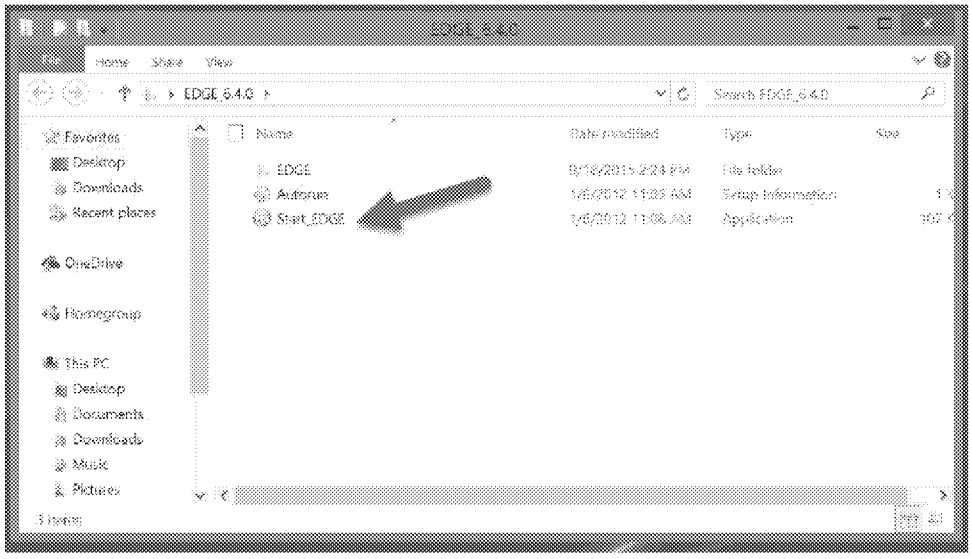
3. Press the eye symbol by the password to see the characters you have entered. If correct press the arrow beside the password box.
4. After successful login you will see the following screen. Press the desktop icon in the lower left-hand corner.

OPENING EDGE

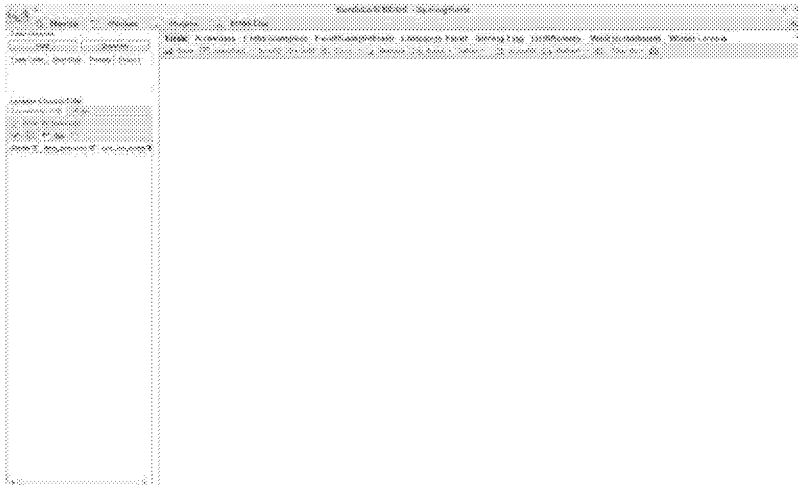
5. You will see the following screen. There will be an EDGE icon it will say EDGE 6.4.1. Double-click this icon.



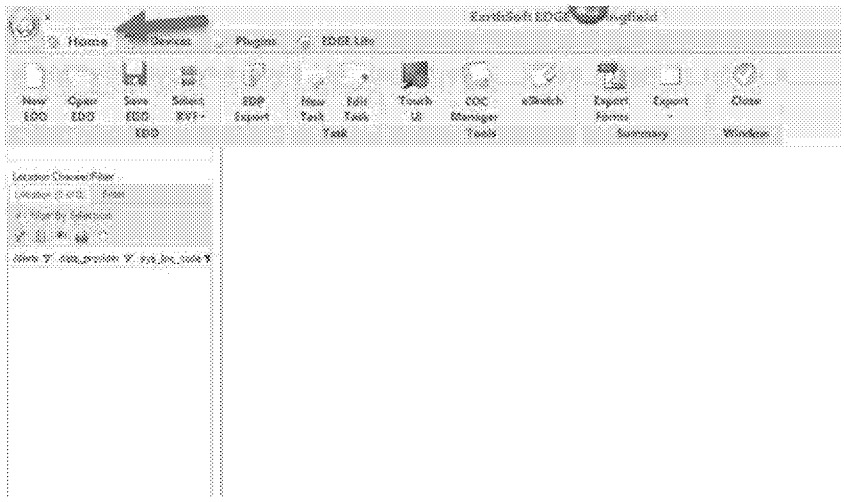
6. After double-clicking the EDGE icon the following screen appears.



7. Click "Start EDGE". A small black box/void will flash quickly on the screen indicating that EDGE is opening. Patiently wait until the following screen appears.



8. Press "HOME" as indicated with the red arrow below and the icons under "HOME" appear – "OPEN EDD", "SAVE ", SELECT RVF", "EDP EXPORT", "TOUCH UI" and "COC Manager" are primarily the icons that you will use from this menu.



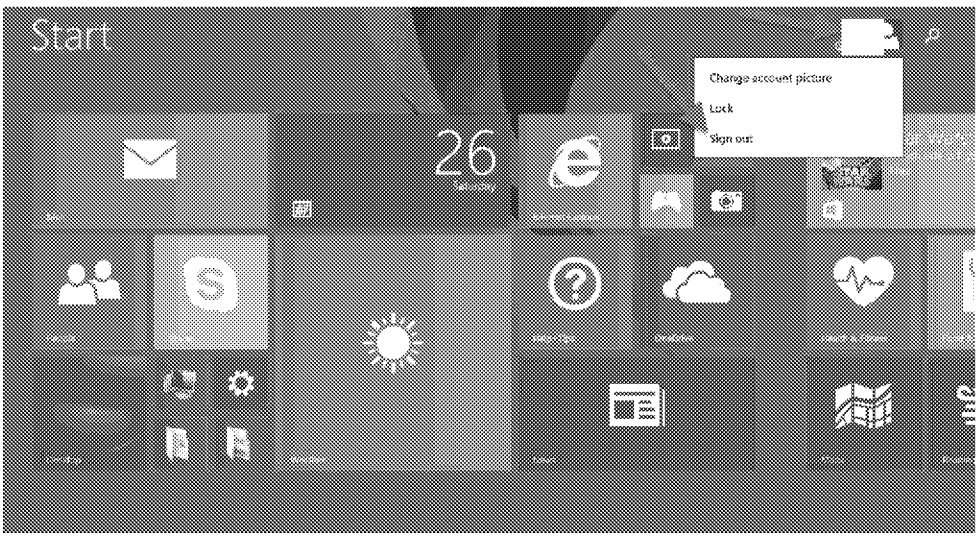
Below are descriptions of what each of the ICONs do.....

a. **Open EDD** – this is what you choose to open your task file for the day.
b. **Save EDD** – this is one option for periodically saving your working files which you should get in the habit of doing
c. **Select RVF** – you will do this first every day to ensure you have the most current reference values for the site. This file contains the "Brain" behind the database.
d. **EDP Export** – this enables you to gi for ON, touch UI will turn on the tablet touch screen options for each EDGE screen.
e. **COC Manager** – this is where you create COCs.

Move on to 2.0 for using EDGE

TO SHUT DOWN

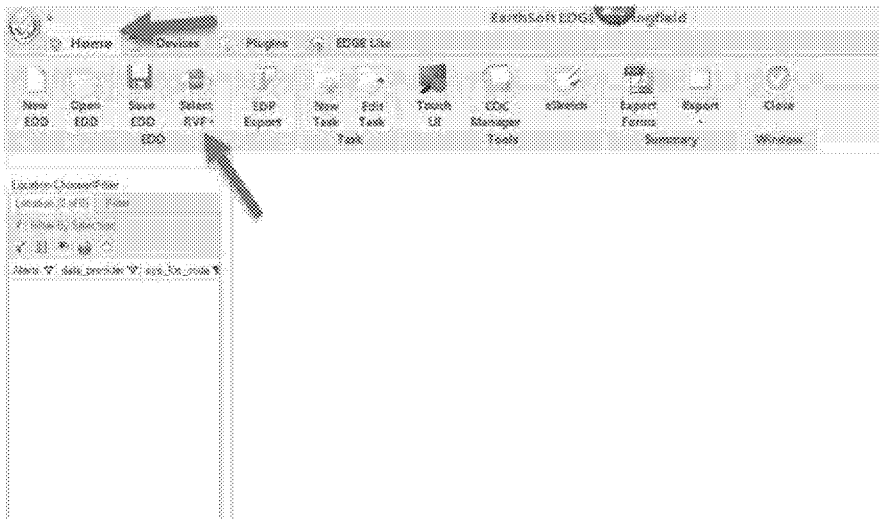
9. When you are done for the day close the EDGE application and any other applications, files or programs you are running. Navigate back to the START page. You do this by touching the small windows icon on the bottom middle of the tablet screen 
10. Click by [Project Name] and then choose sign out. This will log you off the tablet. You will then see a small shut down icon similar to  . Press this to turn the tablet off. Avoid hard boot if possible (meaning don't turn off using the turn on button).



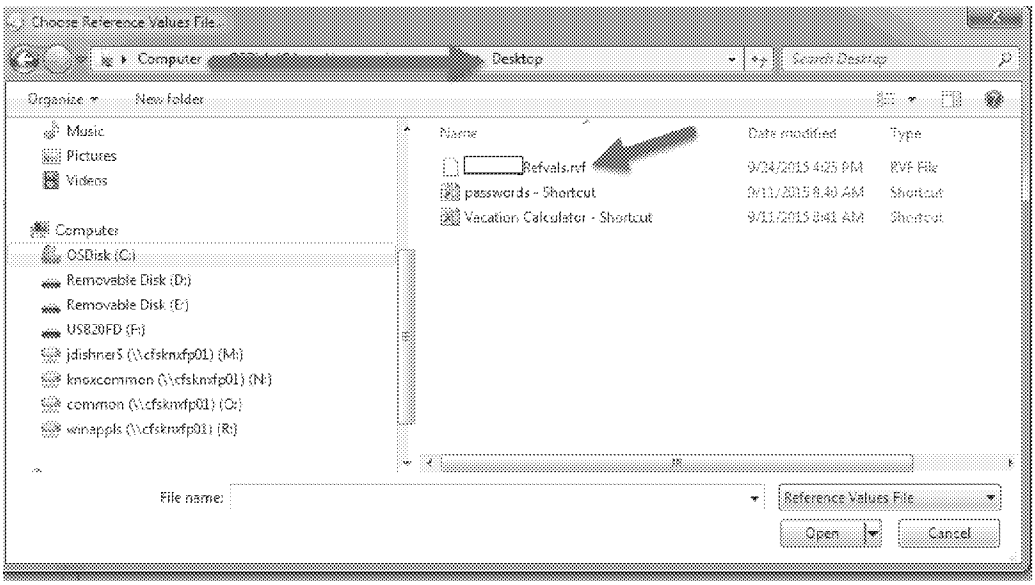
2.0 USING EDGE

SELECT RVF

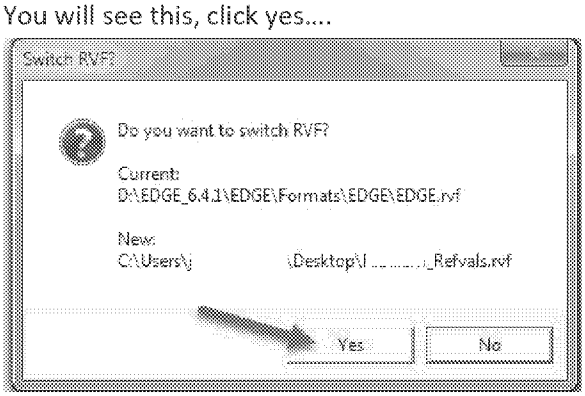
1. You do this step first to define the project. Click Home and click SELECT RVF.



2. Navigate to the tablets desktop *(it may look slightly different on the tablet as the screenshot below is on my laptop).*
3. Click on the "_REFVALS.rvf" file and then Click OPEN on the bottom right of screen

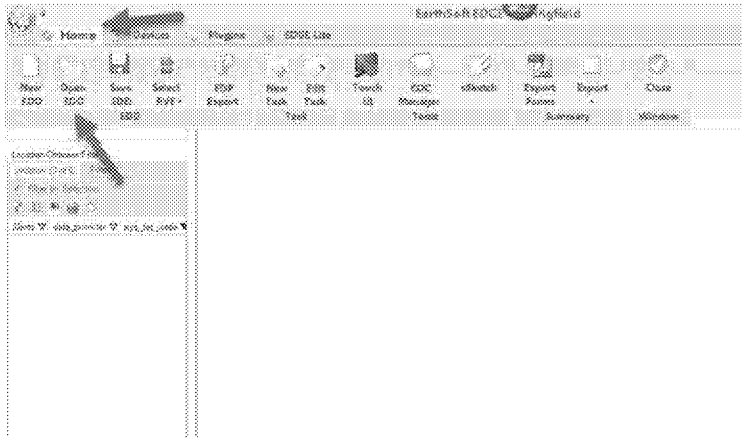


4. You will see this, click yes....



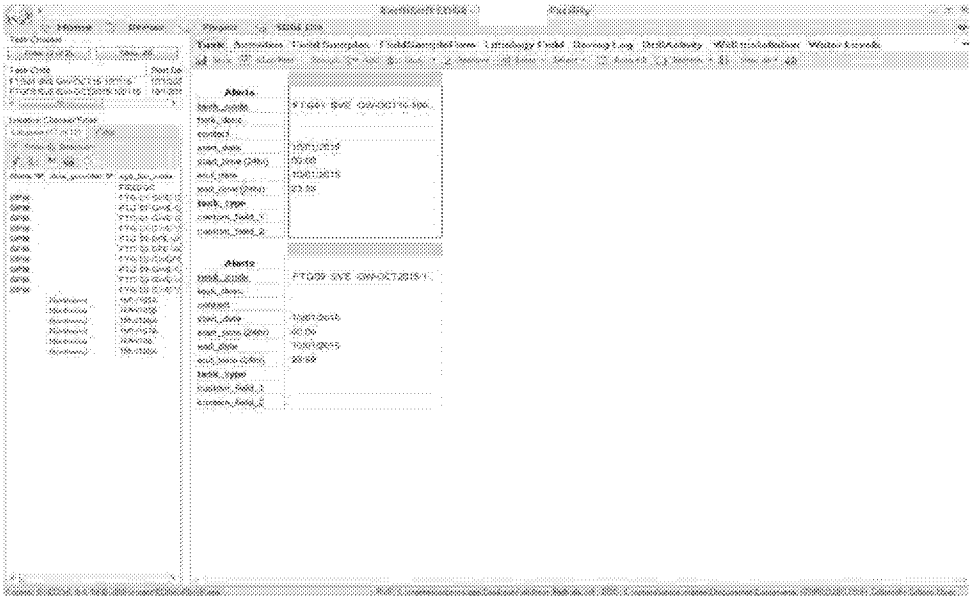
OPEN EDD

5. Press the HOME Icon and Press OPEN EDD *(this step you do every time you open EDGE)*

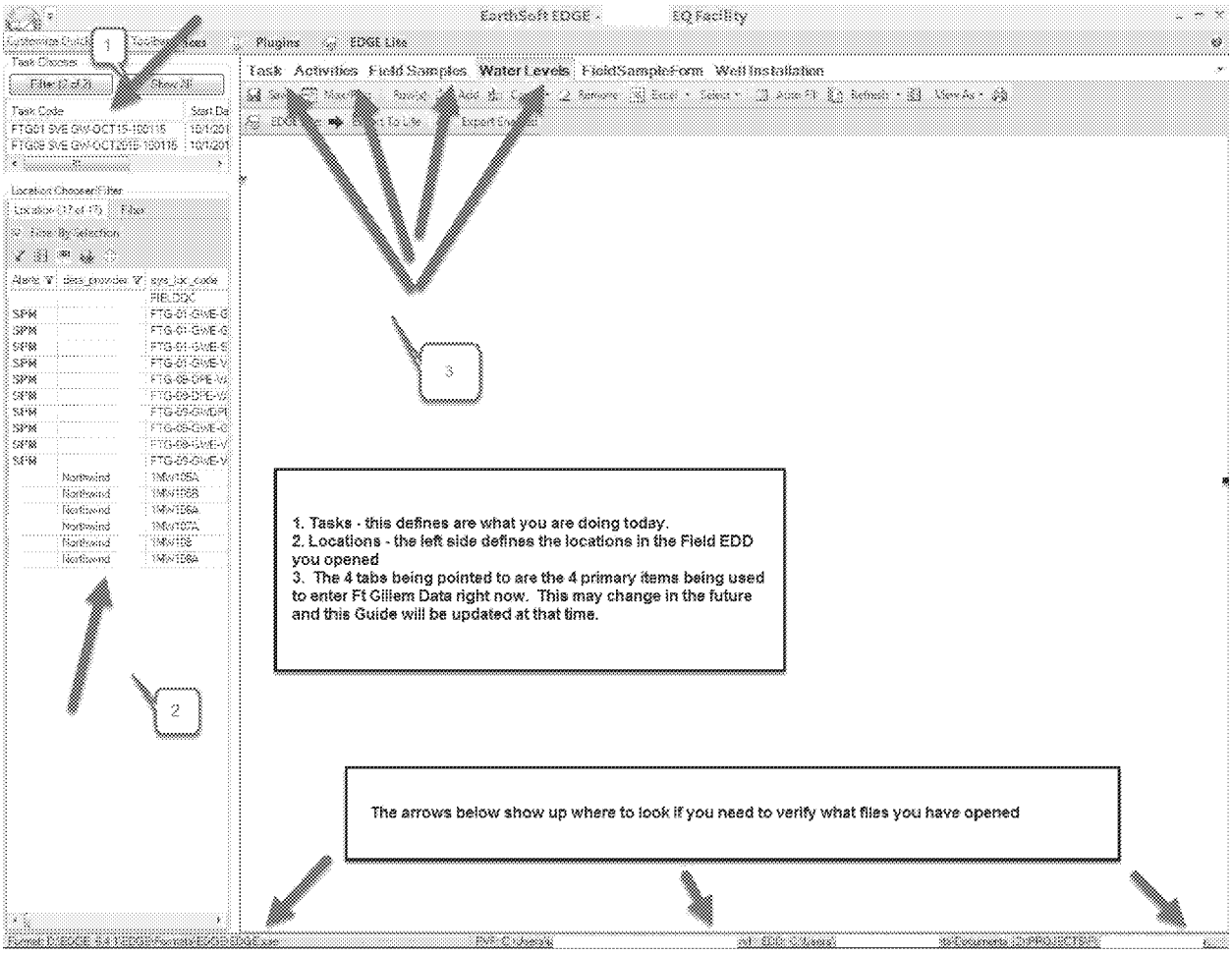


6. Navigate to the tablets desktop as you did in steps 2 and 3 above and there should be 2 folders on the desktop called *(if not create them)*:
    a. **MASTER FIELD EDDS** – these are EDDS you copy and then rename as needed. For example with DAILY SVE data.
    b. **FIELD EDDS** – this to where your working files should go and be saved. You should create any copies you need from MASTER FIELD EDDS and move them here. OR, if you are provided a Field EDD from the Project Chemist, you should save it here.

7. **OPEN YOUR EDD** and patiently wait. A screen similar to the below caption should pop up.

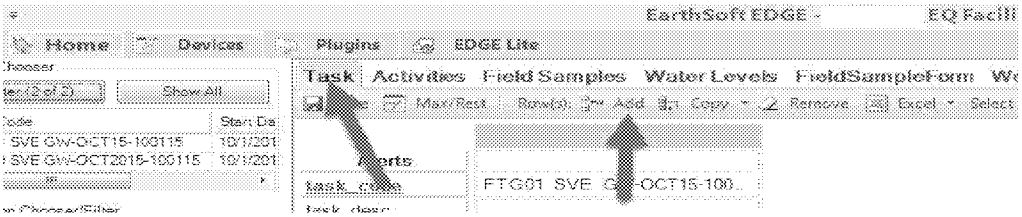


8. The following captions describe what you are looking at….



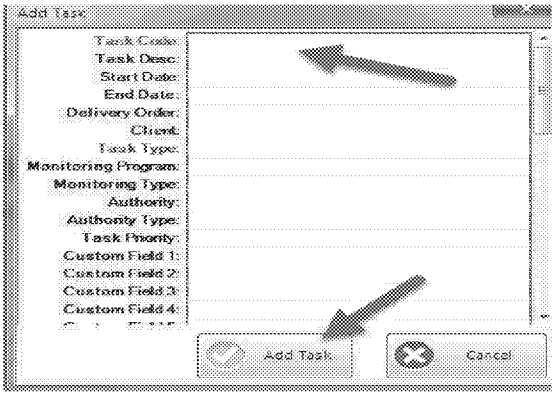
ENTER A TASK

9. **TASK** – If samples are planned for you, task will most likely be defined but you might have multiple tasks to choose from. If you are entering daily SVE Checks you will need to create a task for what you are doing today. To create a new task do the following:



10. Make sure TASK is highlighted compared to the other headings. Click ADD.

11. The following screen pops up. Enter TASK CODE only and a press ADD Task.



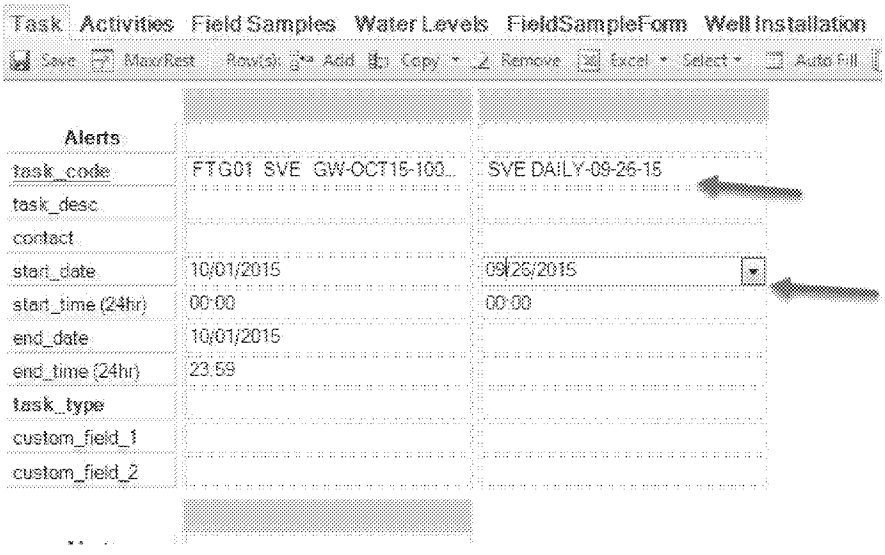
For SVE Daily System Field Readings use a Nomenclature as follows for TASK.

SVE DAILY-09-26-15

SVE DAILY-09-27-15

Each day should have a different Field EDD and a new task entered.

12. After selecting ADD TASK the following screen pops up. You see the newly added task along with any already existing tasks. You can add any info you want here (REMEMBER THAT ANY FIELDS WITH A RED TITLE ARE REQUIRED). I suggest just adding a start date here and everything else can remain blank.

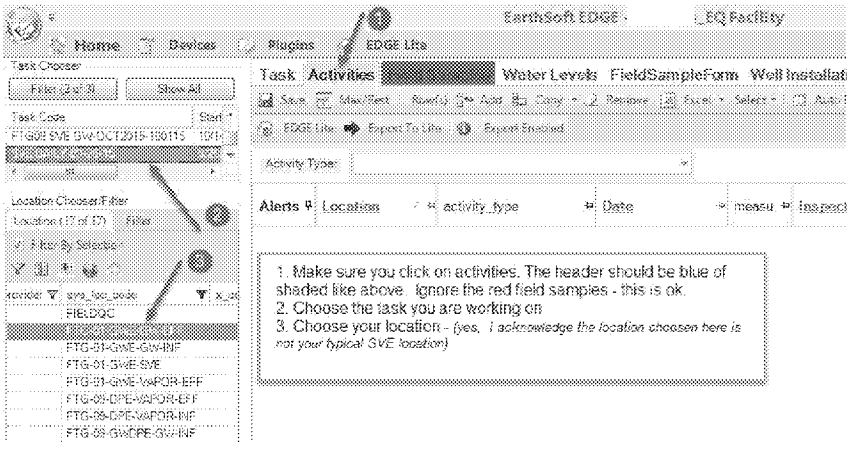


YOU ARE READY TO ENTER FIELD DATA.

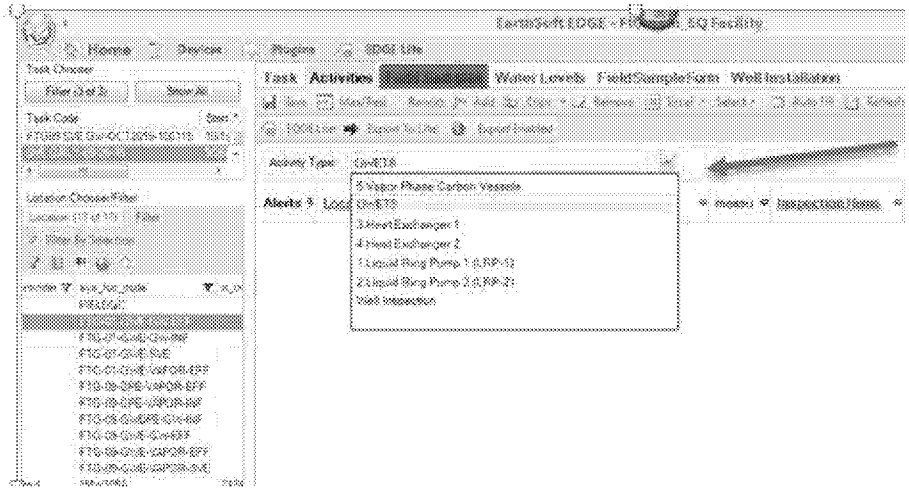
3.0 ENTERING DATA

ENTERING SVE DAILY READINGS

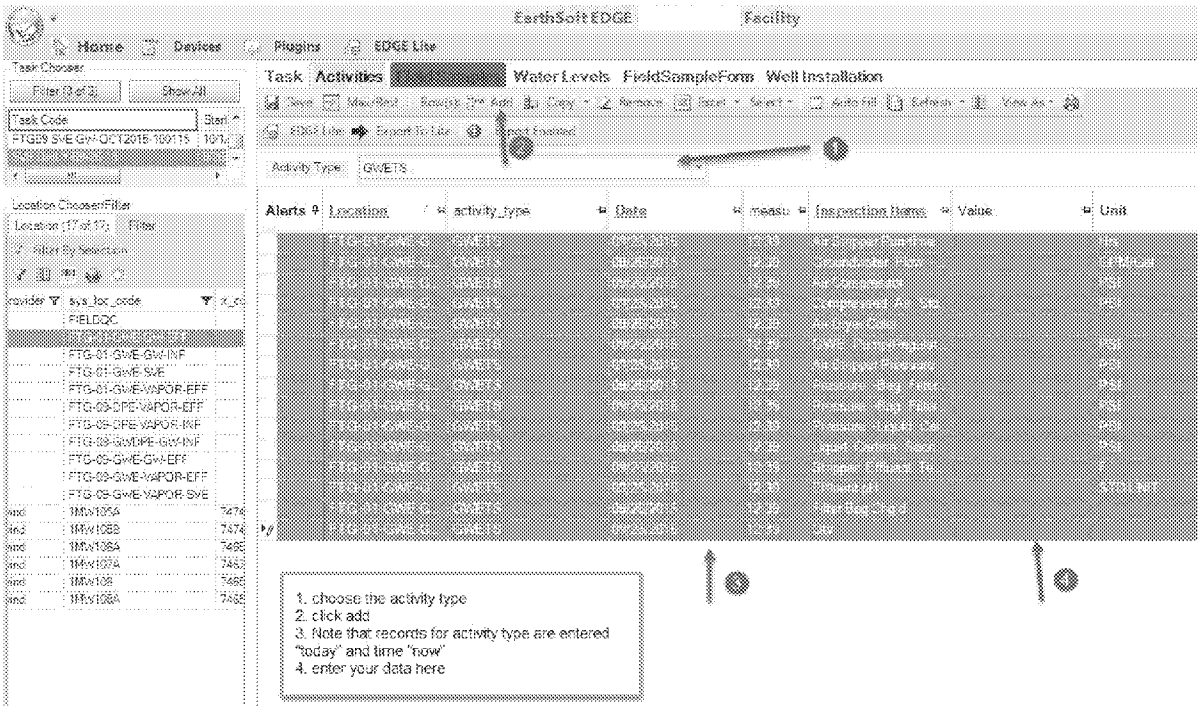
13. Click ACTIVITIES (See #1 on the screen cap below).



14. Click the drop down for ACTIVITY TYPE and choose the activity for your location.



15. Enter the data….

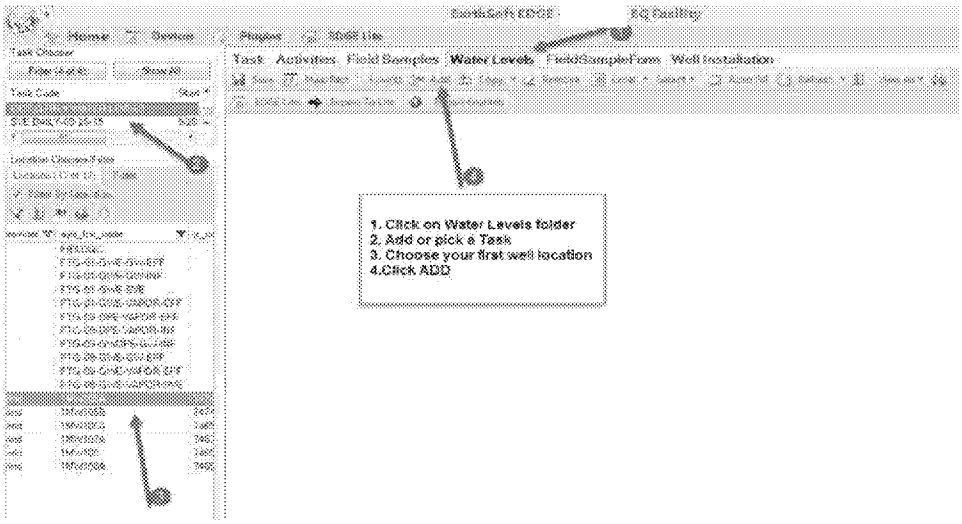


Make sure you are saving periodically throughout data entry

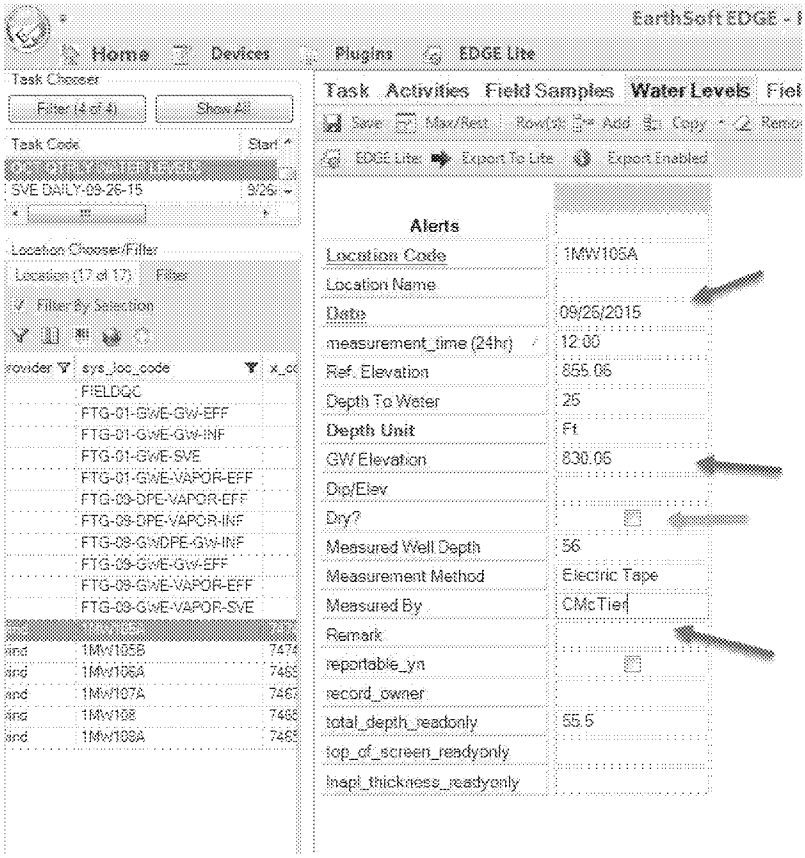
16. Continue to work through your locations and activity types until all your data are entered. When done save your data and create an EDP Export. See **PRODUCING AN EDP EXPORT**.

ENTERING WELL WATER LEVELS

17. Start by opening the correct REFVAL and field EDD files as described in OPEN EDD starting at #5 above. If you have been working in EDGE already or you have not been given a new REFVAL file then you will not need to repeat the Open REFVAL steps.
18. After you have your correct Field EDD open, follows these steps…



19. Clicking Add will load the well data as seen below on the right side of screen cap. Fill out at a minimum the info shown below (NOTE: Data already in the database about a well location will already be displayed on this screen. Data like total depth, GW Elevation or Ref Elevation).



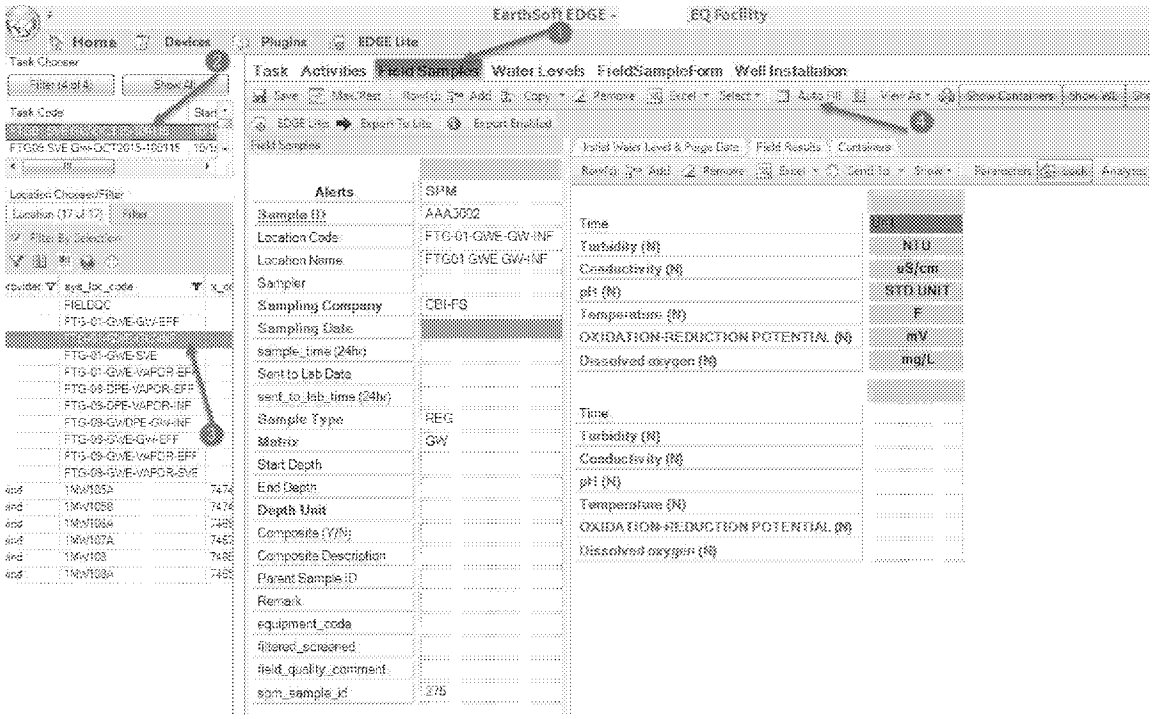
NOTE the GREEN arrow above. If a well is dry, you should fill in the date and time and check DRY? To indicate no water level taken but you did make the effort to check this location.

20. Choose your next well location and click Add as in Steps 18 and 19 and enter data for the next well location. Continue until all water levels are collected
21. When finished, create your EDP EXPORT – See **PRODUCING AN EDP EXPORT.**

ENTERING/LOGGIN FIELD SAMPLE DATA (SVE Water and Air)

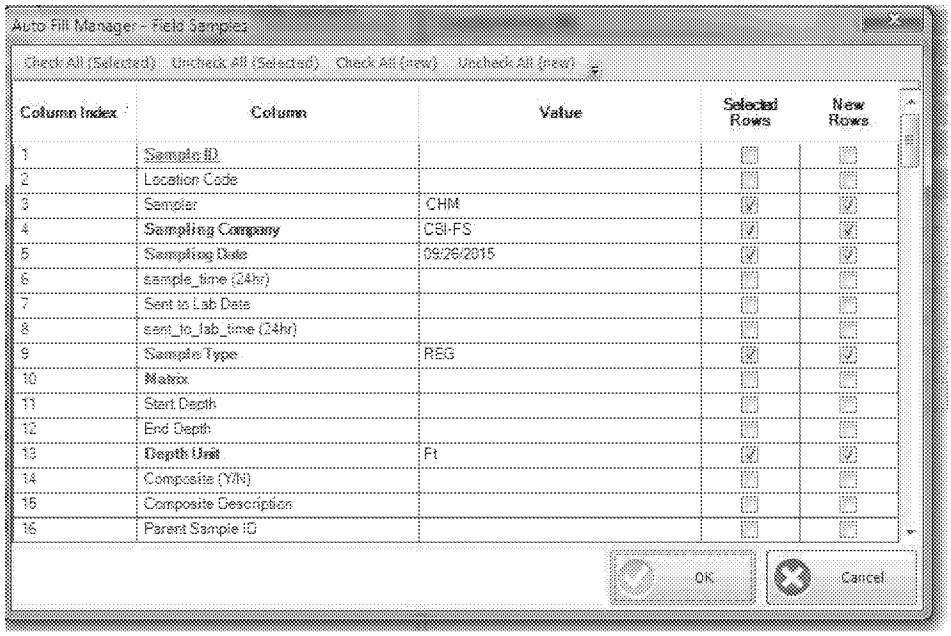
22. Start by opening the correct REFVAL and FIELD EDD files as described in OPEN EDD above starting at #5 above. If you have been working in EDGE already or you have not been given a new REFVAL file then you will not need to repeat the OPEN REFVAL steps.

23. After you have your correct Field EDD, follows these steps…

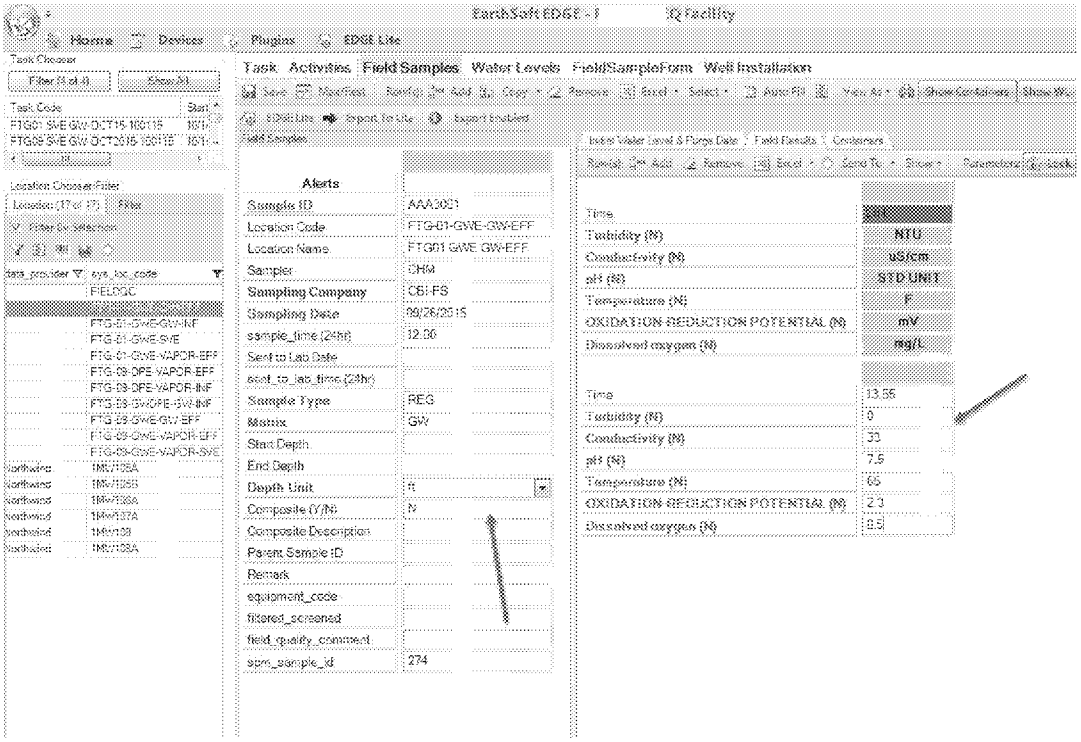


The above is an example of planned samples. For planned a sample # is already populated. Click Auto-fill Step 4 and fill in the information that will remain constant as you log samples, this will eliminate some of the data entry task for every sample.

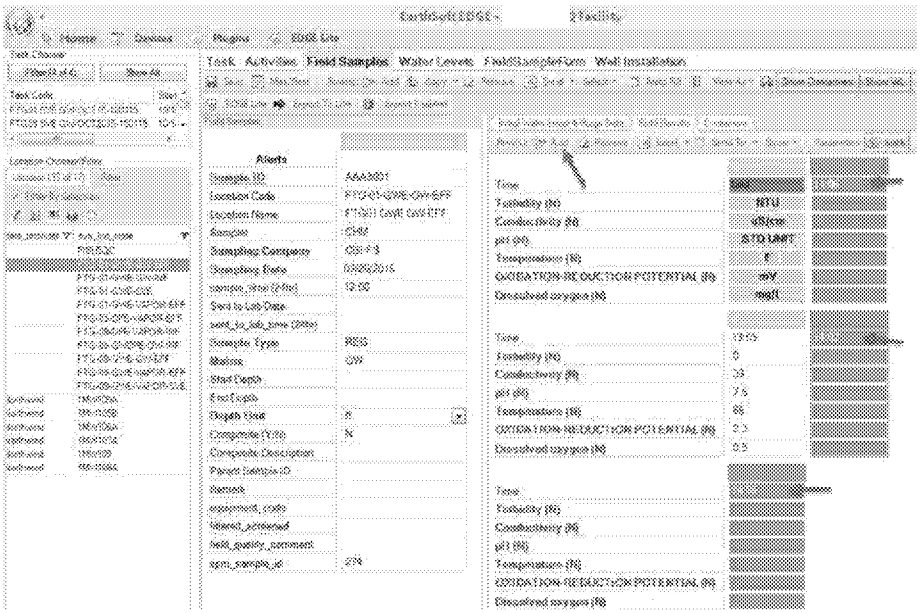
24. Example of auto-fill parameters and Field Samples is shown below. When done click OK, bottom right.



25. Enter relevant sample info (sample date, sample time, sampler initials etc) and field readings (such as turbidity, pH, etc) as applicable to your task.



26. If you need to enter a 2nd or subsequent set of field reading Click ADD as shown on the screen below ans a 2nd data entry box will pop up (See the blue highlight areas below).

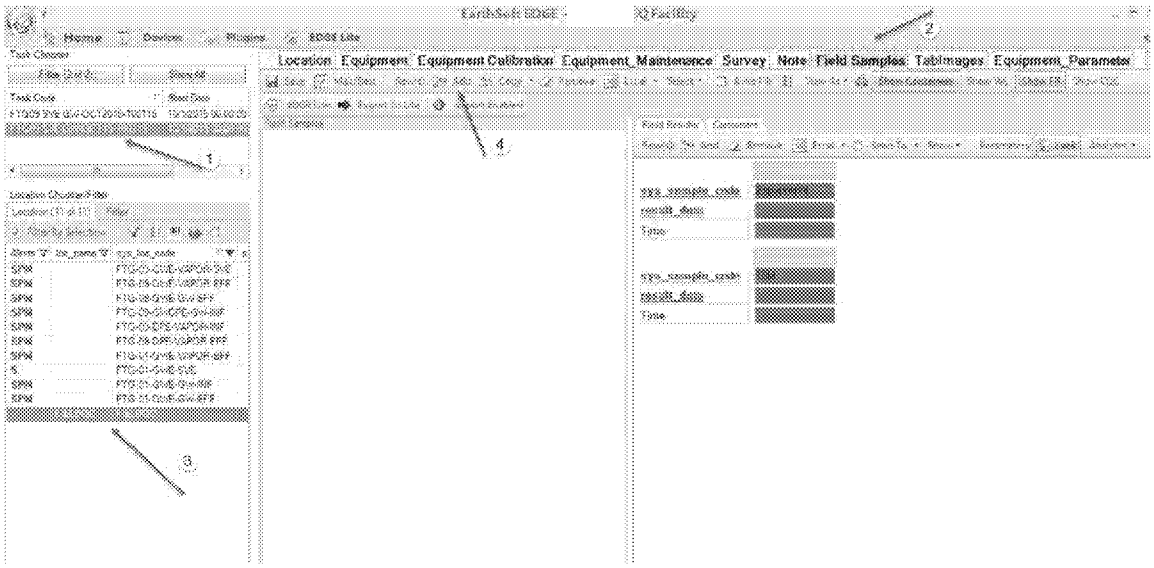


The time will auto-populate as shown above. This is helpful when developing wells and collecting field readings every 5-10 minutes for stabilization.

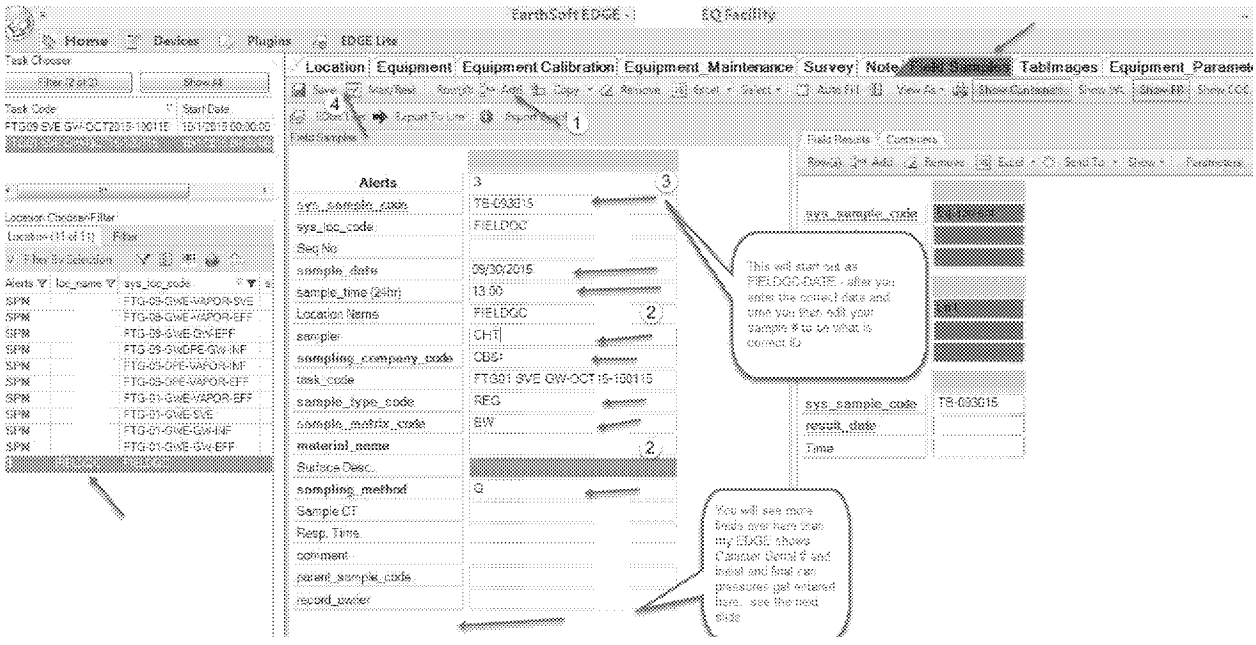
27. Choose your next location and click Add as in Steps 23 and 24 and enter data for the next location.

AD-HOC (Trip Blanks and Equipment Rinsates)

28. See the cap below. Adding QC samples or AD-HOC is the same as adding planned samples except all the information is not planned for you. This shows you where….



29. When you choose ADD #4 above, the screen below pops up. Follows the steps and instructions in this screen to log the adhoc sample. NOTE for #3 – you must fill in all the fields for #2 first and then change your sample # after the date/time are correct. IF YOU CHANGE THE DATA/TIME after entering the SYS_SAMPLE_CODE it will revert back to FIELDQC-DATE. <u>YOU MUST ENTER THE SYS_SAMPLE_CODE last</u>

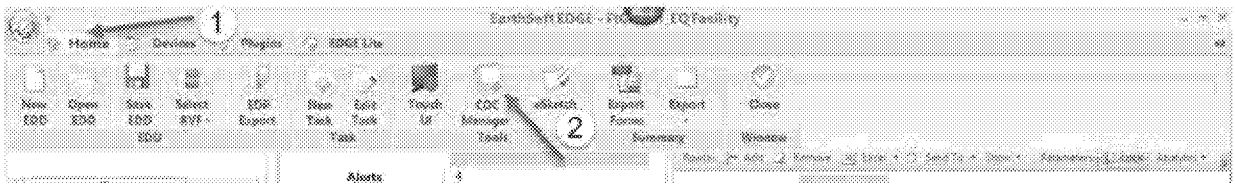


NOTE – for Air samples we are adding places to record initial and final canister pressures and canister serial #s Coming SOON! See the note above for more explanation.

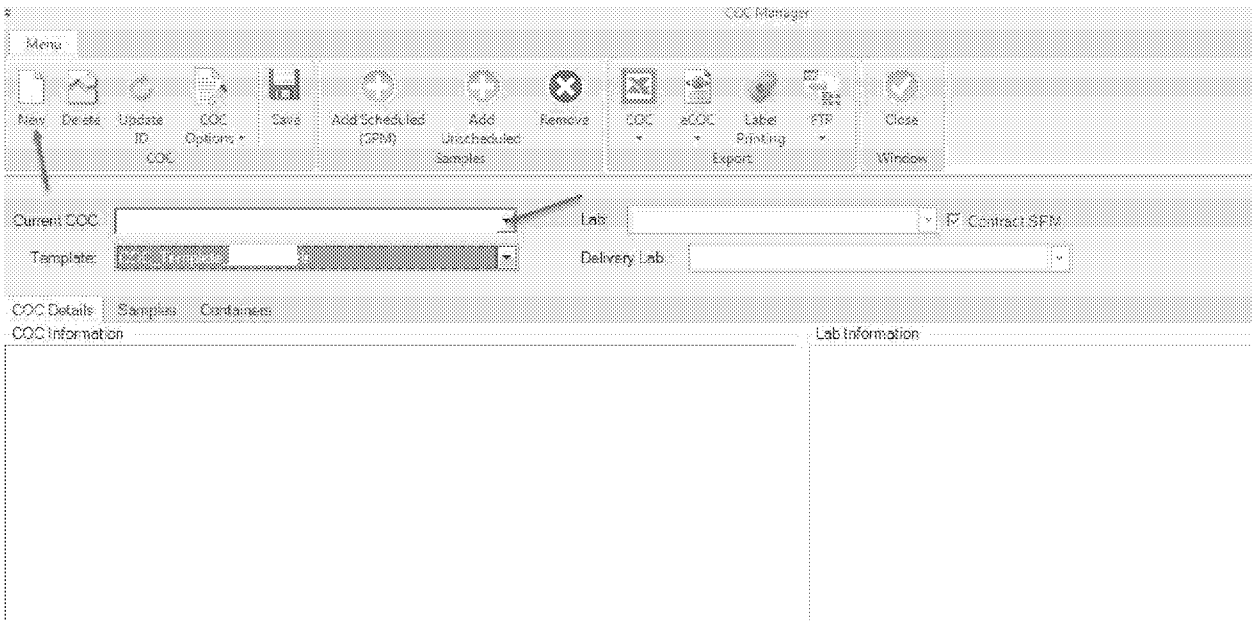
30. When finished with a task (after COC is compete), create your EDP EXPORT – **See 5.0 PRODUCING AN EDP EXPORT.**

4.0 PRODUCING COC

1. Go to HOME and click COC MANAGER

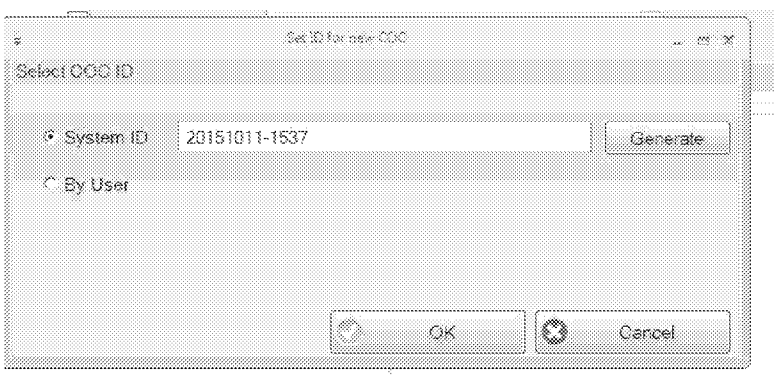


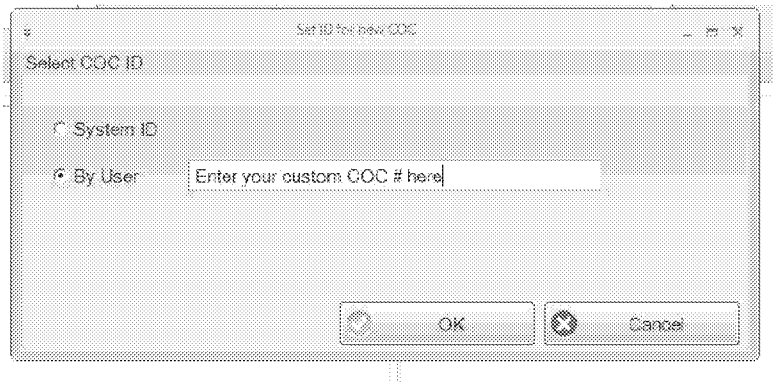
2. The following screen comes up. You either add a NEW COC or use the dropdown arrow to pick and edit and existing COC.



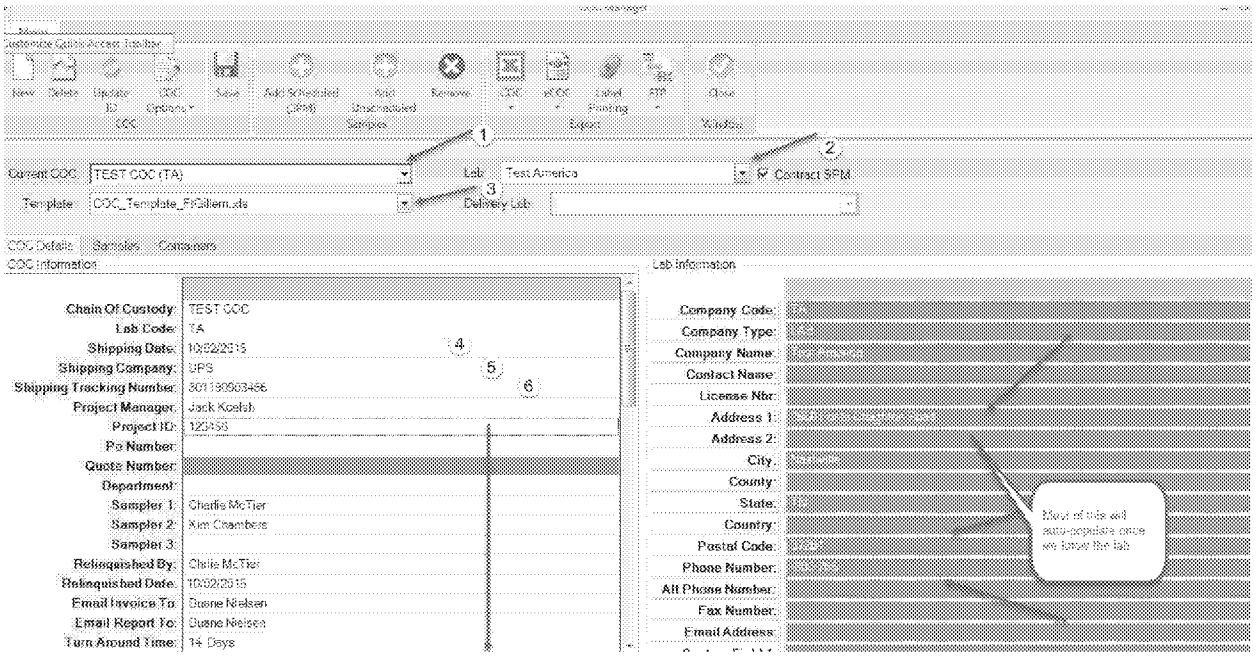
3. Talk to [PROJECT CHEMIST] about nomenclature for new COCs.

4. The 2 screens below are what you see depending on letting the system generate COC # of Custom defined COC #s



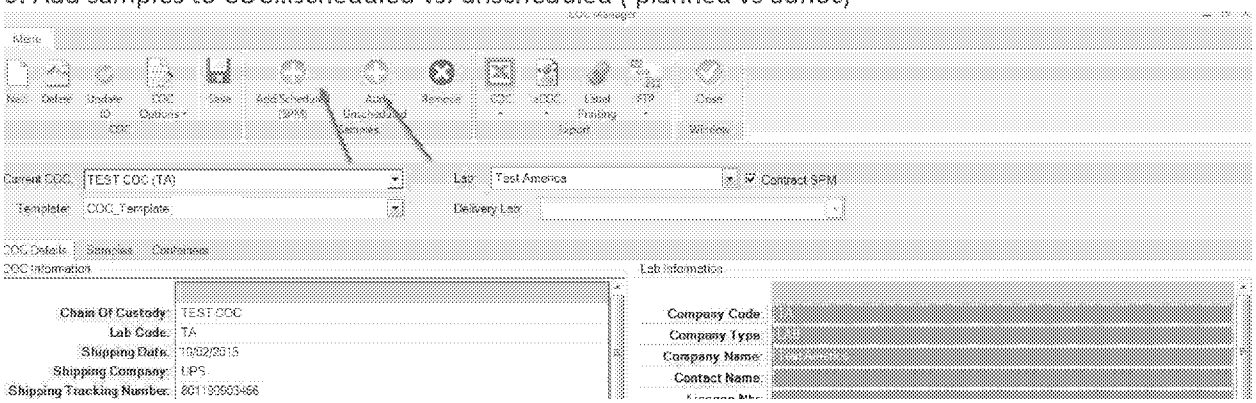


5.

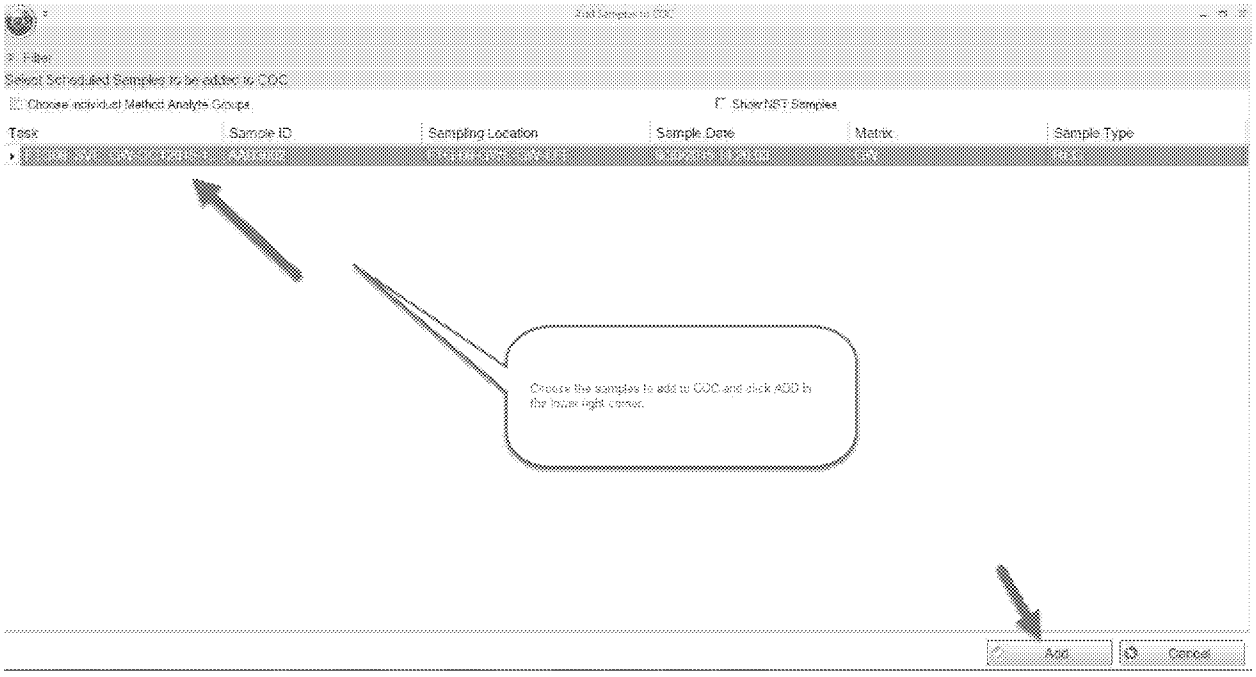


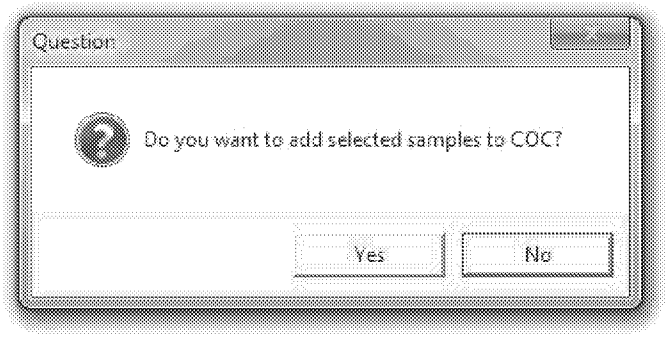
1. This is where you defined the name
2. Pick the lab
3. Pick the COC template.
4-6. Fill-in anything missing. Make sure you have a shipping date.
The right side in blue – most items will be pre-populated depending on LAB.

6. Add samples to COC…scheduled vs. unscheduled (planned vs adhoc)

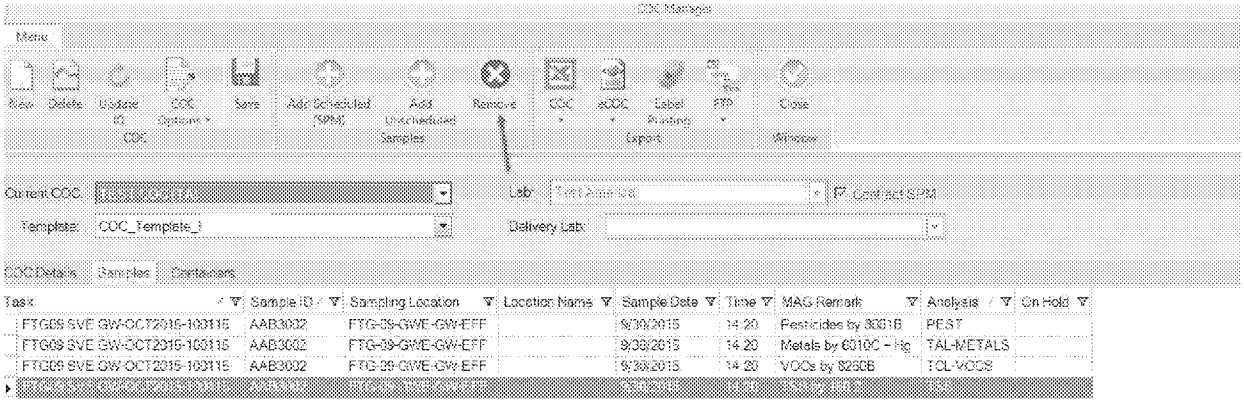


Scheduled/Planned



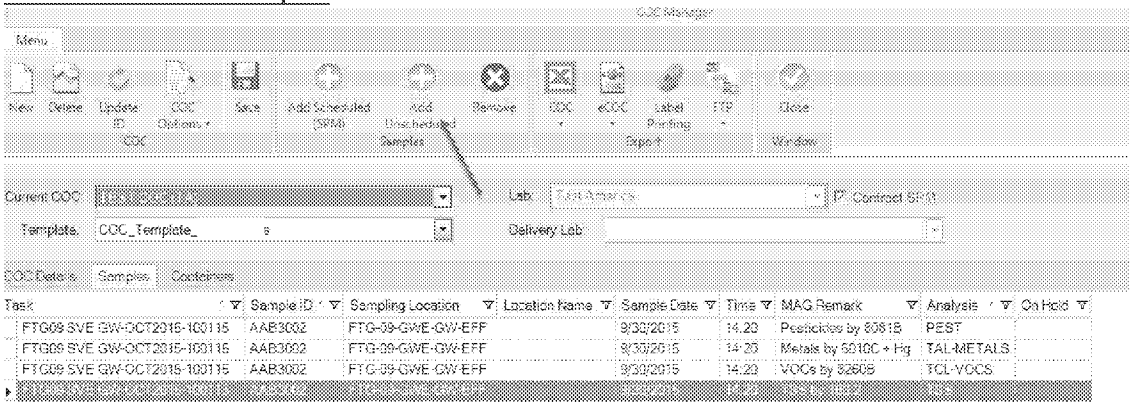


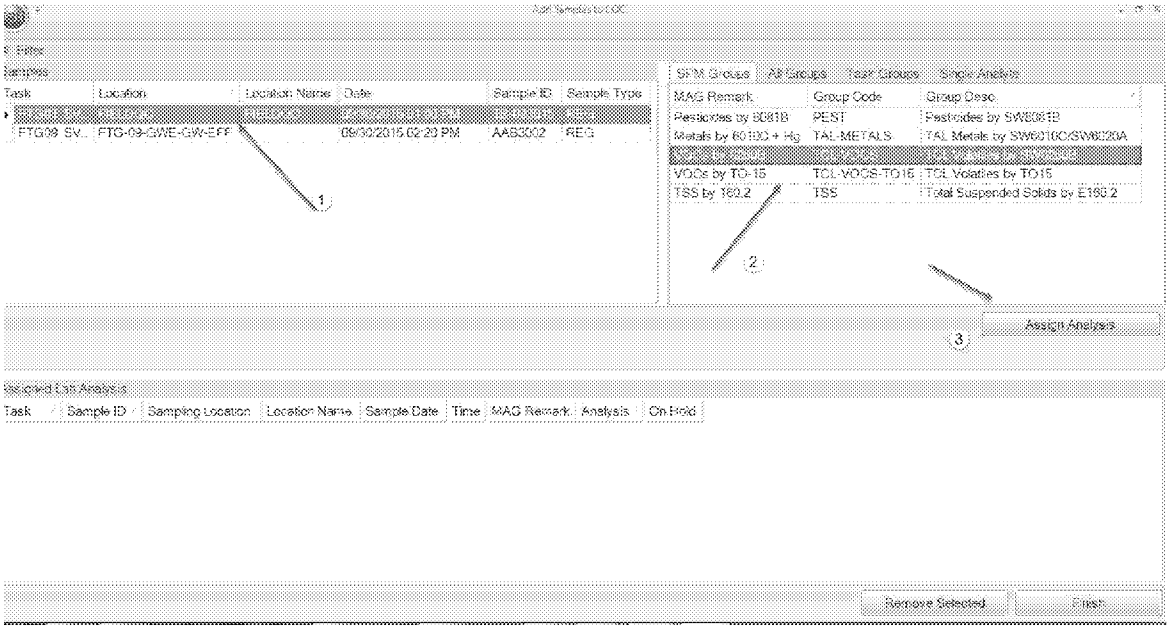
Add the samples by choosing YES above.



The planned analyses for the chosen samples will display. If you need to delete a planned test for example due to lack of sample volume you do this here by highlighting the analysis (see blue TSS by 160.2 above) and then clicking delete. If the analyses are correct. You can continue to add samples or unscheduled samples.

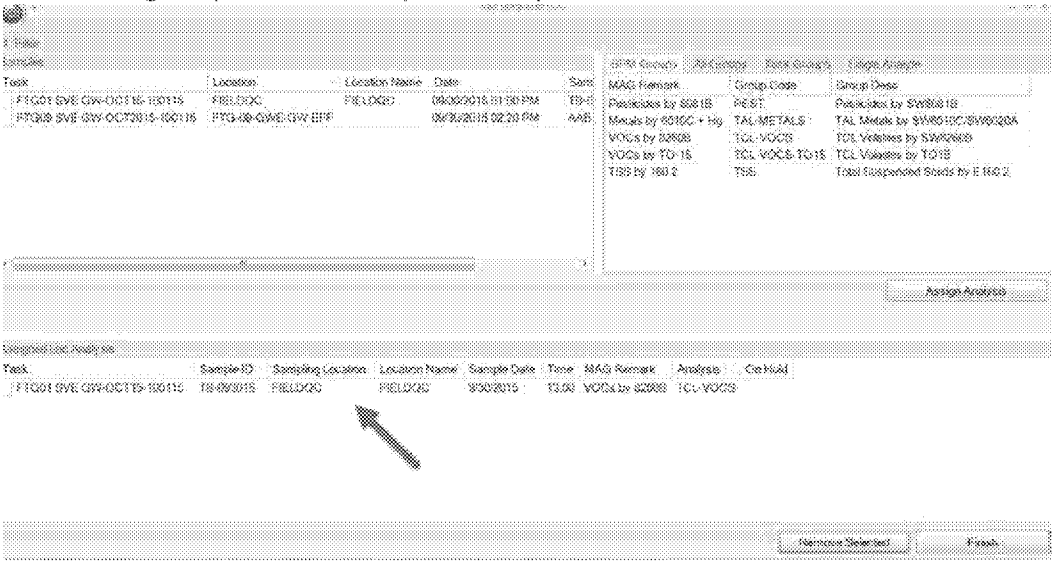
ADD Unscheduled samples





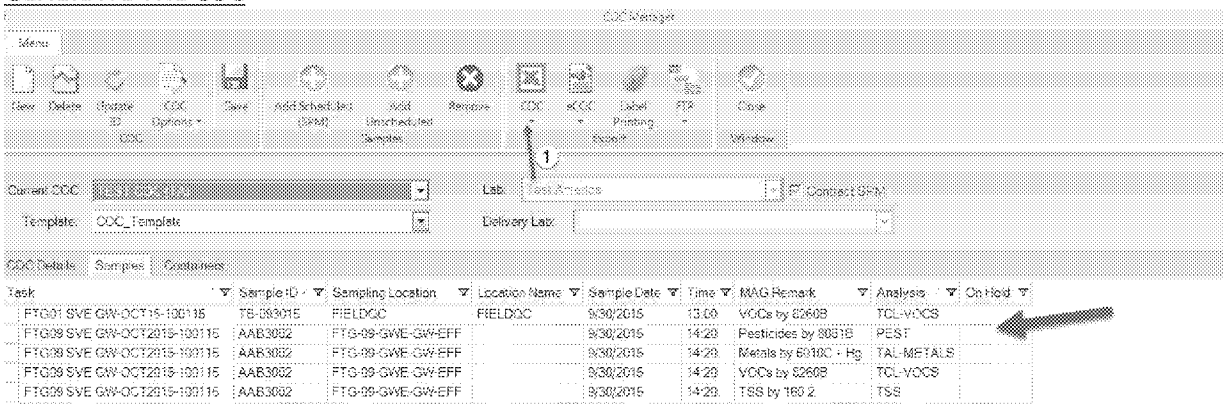
1. Pick the adhoc sample
2. Pick the analyses
3. Assign analyses

The resulting sample and it's analysis show up here

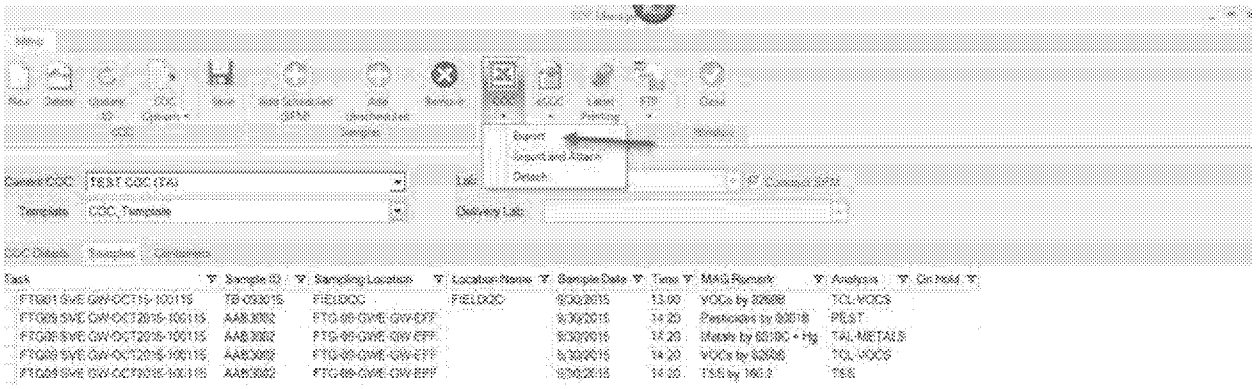


Click FINISH in the bottom right corner of screen.

GENERATE THE COC



1. Click the EXCEL COC button.

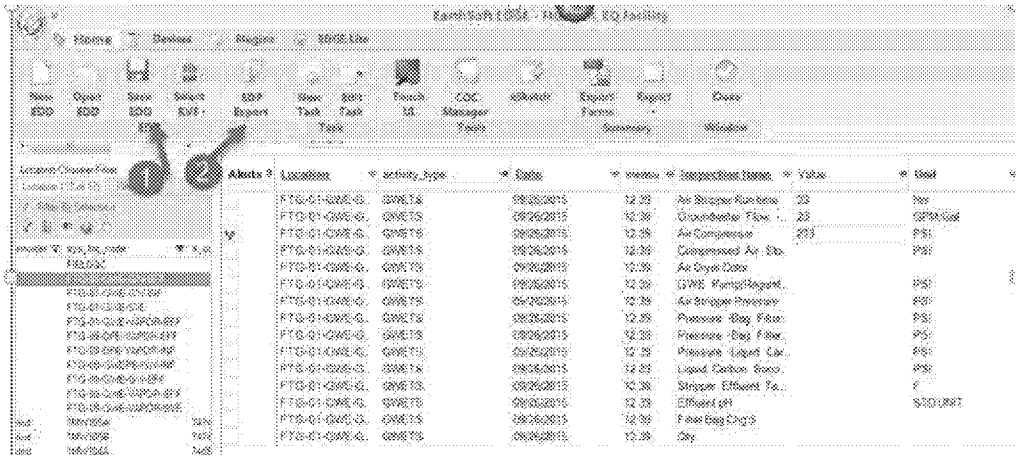


2. Click EXPORT
3. The COC will export in EXCEL, look for the worksheet tab called COC (pg1). If you have more than one page you will have multiple worksheets "COC (pg1) , COC (Pg2) etc.
4. You can print your COC, sign and ship your samples. You can ship by connecting to tablet to a printer with USB, wirelessly or by saving the COC on a USB and printing.

   You are ready to produce an EDP Export.

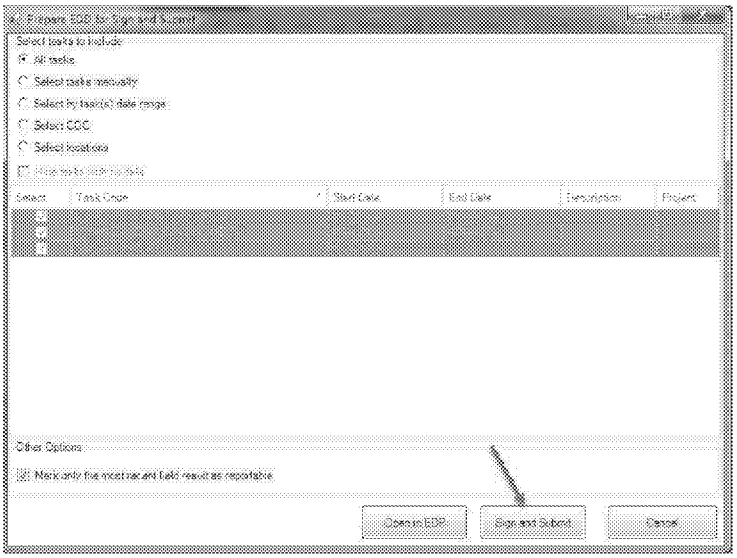
5.0 PRODUCING AN EDP EXPORT - *you do this for each Field EDD you use each day*

1. Save your EDD and click EDP Export from HOME

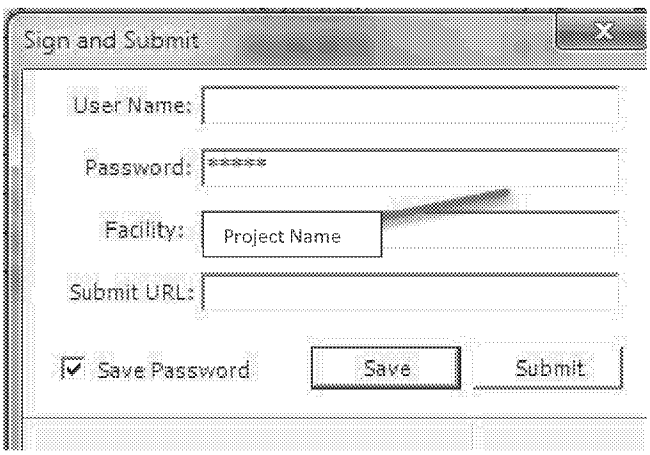


2. This is a fairly easy task, scroll through the following screencaps for instructions.

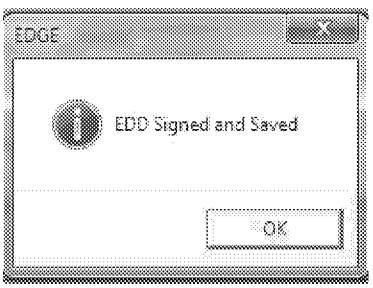
3. After clicking EDP EXPORT the following pops up. Click Sign and Submit



4. Enter [Project Name] where indicated on the following screen.



5. A file path for saving will pop up. You can save your file here or since you will be emailing the file, I suggest you create a folder on a jump/USB drive called "EDP Exports. You navigate to change your save location to the USB drive and save the file.
6. Once saved you get the following message.

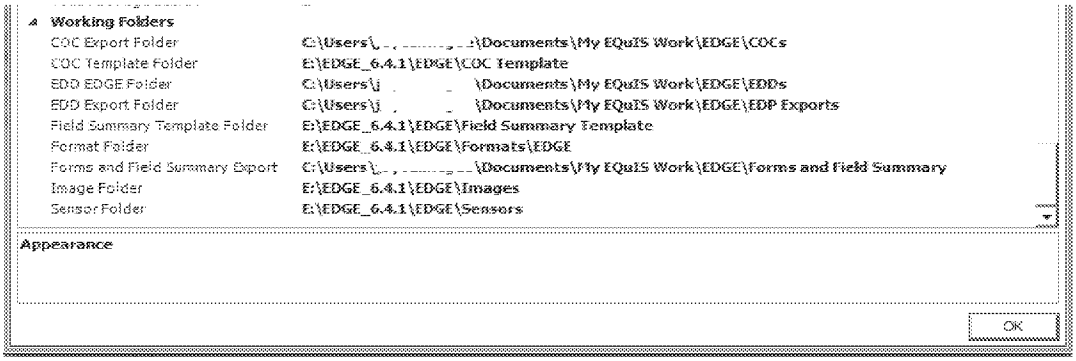


7. You can now shut down or move on to your next task, such as water sampling or GW level reading. You will start over in this guide by opening a new Field EDD for your next task.

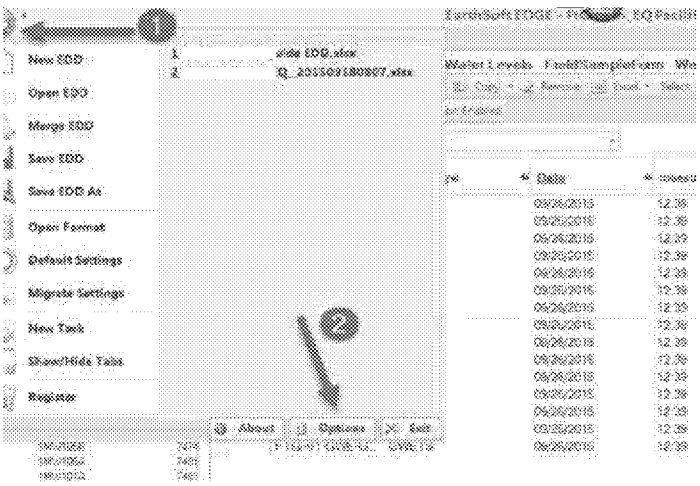
8. At the end of each day, email your EDP Exports to Project.Chemist@aptim.com.

6.0 SOME GENERAL INFO

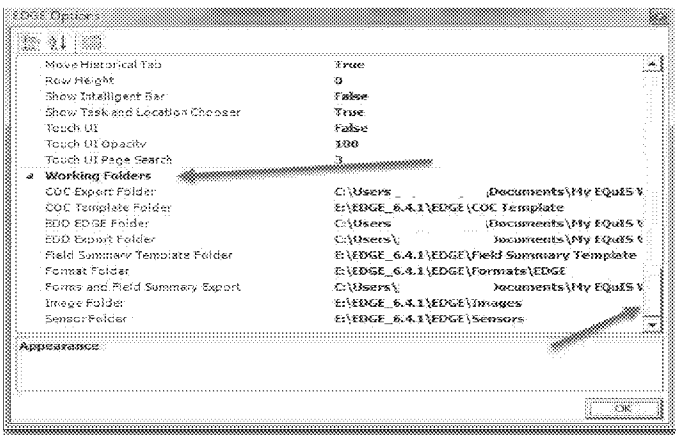
WHERE FILES GET SAVED BY DEFAULT Default file saving paths….keep in mind each tablet will be slightly different, the screen cap below showed the path for [Database Manager] but the overall strategy for saving is the same from device to device. Saving is typically in the DOCUMENTS\MY EQUIS WORK\EDGE\folders.



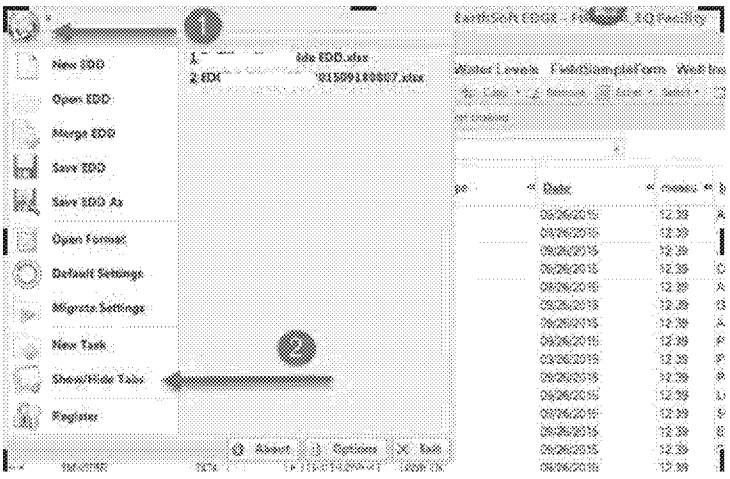
How you find the above information in EDGE…



Scroll to the bottom of the next window and the file folders are in “working folders”



IF ASKED TO CUSTOMIZE THE TASK/FOLDERS YOU SEE TO ENTER DATA IN EDGE



Choosing below customizes what your see across the top of the EDGE window. Right now you are using Task, Activities, Field Samples and Water Levels only.